

# CORNELL UNIVERSITY MEDICAL COLLEGE LIBRARY





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# CORNELL UNIVERSITY MEDICAL BULLETIN

1930.31

**VOLUME XX** 

NUMBER ONE

ANNOUNCEMENT

OF THE

MEDICAL COLLEGE

JULY, 1930

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# Cornell University Medical Bulletin

Issued Quarterly



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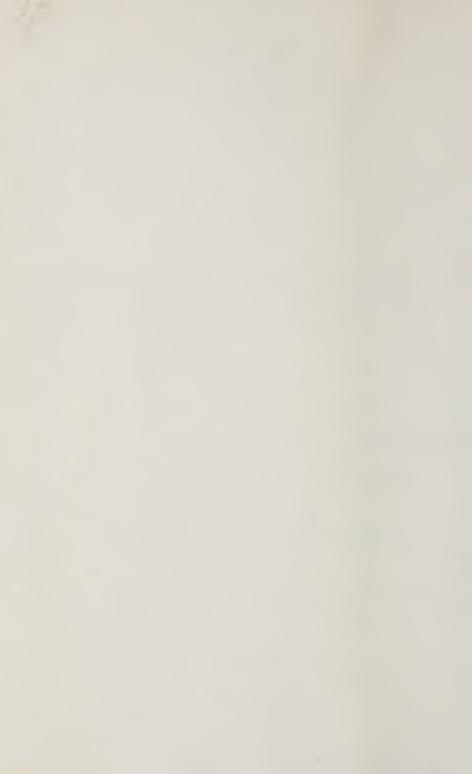
THESE PUBLICATIONS INCLUDE

The Annual Announcement of the Medical College

and

Reprinted Studies from the Several Departments of the Medical College and Its Research Laboratories





# CORNELL UNIVERSITY Medical Bulletin

ANNOUNCEMENT

OF THE

Medical College

AT

NEW YORK CITY

and the first year, also, at ITHACA, N. Y.

**♦** 



THE PAGES IN THIS VOLUME HAVE
BEEN INTERLEAVED WITH AN ACID
FREE PAPER TO PERMIT BINDING
AND TO REDUCE FURTHER DETERIORATION.

#### ITHACA! DIVISION

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#### CALENDAR

1930

Friday—Examinations begin for admission to the first year of all Sept. 13. departments of Cornell University at Ithaca, N. Y.

Thursday—Examinations begin for conditioned students and for Sept. 25. those applying for advanced standing in the Medical College at New York City.

Monday—Last day for Registration. Sept. 29. Tuesday, 9 A.M.—Instruction begins. Sept. 30.

Oct. 13. Monday—Legal holiday.

Nov. 4. Tuesday-Election Day, legal holiday.

Nov. 26. Wednesday, 6 P.M.—Thanksgiving recess begins.

Monday, 9 A.M.—Thanksgiving recess ends. Dec. 1. Dec. 20. Saturday, 6 P.M.—First term ends.\* Christmas recess begins.

1931

Jan. 5. Monday, 9 A.M.—Second term begins.

Feb. 23. Saturday—Legal holiday.

- Saturday, 6 P.M.—Second term ends.\* Mar. 14. Mar. 16. Monday, 9 A.M.—Third term begins.\* Apr. 2. Thursday, 6 P.M.—Easter recess begins.
- Monday, 9 A.M.—Easter recess ends. Apr. 6. Friday, 6 P.M.—Third term ends.

May 29. May 30. Saturday-Legal holiday.

Monday-Examinations begin. June 1.

Thursday—Commencement. June II.

All students must be registered at the secretary's office at or before the opening of the session. No student will be admitted after Registration Day without special permission of the Faculty. Immediately after registration the fees must be paid at the treasurer's office.

Any student may take the first year at either New York City or Ithaca. All students take the last three years at New York City only.

<sup>\*</sup> The session is subdivided into three terms of twelve, ten, and eleven weeks, respectively, and courses are scheduled in conformity with this sub-division.

# BOARD OF TRUSTEES

The President of the University	)		Ithaca
The Governor of New York State			Albany
The LIEUTENANT-GOVERNOR OF NEW YORK STATE.	- (		Albany
The Speaker of the Assembly		Ex-Officio	Albany
The State Commissioner of Education	}	Ö	Albany
The State Commissioner of Agriculture		fic:	Albany
The President of the State Agricultural		0.	•
Society			Albany
The Librarian of the Cornell Library			Ithaca
CHARLES EZRA CORNELL, A.B., LL.B			Ithaca
*Walter P. Cooke, LL.D	(B.	)	Buffalo
*Frank H. Hiscock, A.B	(B.	)	Syracuse
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*Frank E. Gannett, A.B	(A.	)	Rochester
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Mynderse Van Cleef, B.S	(B.	)	Ithaca
Mary M. Crawford, A.B., M.D	(A.	)	New York
S. WILEY WAKEMAN, M.E	(A.	)	Quincy, Mass.
Peter G. Ten Eyck	(G.	)	Albany
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HENRY HERMAN WESTINGHOUSE	(B.	)	New York
ROGER B. WILLIAMS, A.M	(B.		Ithaca
BANCROFT GHERARDI, M.E., M.M.E.	(A.	)	New York
JACOB F. SCHOELLKOPF, JR., A.B.	(A.		Buffalo
Myron C. Taylor, LL.B	(G.		New York
CUTHBERT W. POUND, LL.D	(B.		Lockport
Edwin N. Sanderson, M.E.	(A.	,	New York
WALTER C. TEAGLE, B.S	(B.		New York
JAMES W. PARKER, M.E	(A.	,	Detroit, Mich.
ALFRED D. WARNER, B.S.	(A.		Wilmington, Del.
GEORGE R. VANNAMEE, LL.B	(G.)		New York
GEORGE F. BAKER	(B.)		New York
Henry R. Ickelheimer, B.L.	(B.		New York
CHARLES M. SCHWAB	(B.		New York
John B. Tuck, B.L., LL.B.,	(A.		Syracuse New York
Maxwell M. Upson, M.E	(A.		Syracuse
II D D D	$(G_1)$		Ithaca
,			Tillaca
FACULTY REPRESENTAT		25	T.1
GEORGE F. WARREN, PH.D.			Ithaca
HERMAN DIEDERICHS, M.E.			Ithaca
ERNEST G. MERRITT, M.E.		-	Ithaca
* Term of office expires in 1930, the next group of six in 1931	, etc.	B, e	elected by the Board;

<sup>\*</sup> Term of office expires in 1930, the next group of six in 1931, etc. B, elected by the Board; A, elected by Alumni; G, appointed by Governor; Gr, elected by State Grange.

#### MEDICAL COLLEGE COUNCIL

At the foundation of the Medical College the following resolution establishing a Medical College Council and determining its functions was adopted

by the Board of Trustees of Cornell University.

Resolved, That for the purpose of making recommendations to the Board of Trustees or the Executive Committee in relation to the business management of the Medical College there be established, and there is hereby established, a Medical College Council which shall consist of seven members, to wit: the President of the University (who shall be ex-officio chairman), the Dean of the Medical College, and three trustees to be elected by the Board of Trustees or the Executive Committee, who shall be appointed, one for one year, one for two years, and one for three years, and their successors to be appointed for three years, and two members of the Faculty, to be elected by the Faculty, who shall be appointed, one for one year and one for two years, and their successors to be appointed for two years, and that all appointments to fill vacancies be made for unexpired terms.

The Council at present consists of the following members:

LIVINGSTON FARRAND, President of the University and Chairman, ex-officio.

G. CANBY ROBINSON, Director New York Hospital-Cornell Medical

College Association. H. H. WESTINGHOUSE, Myron C. Taylor, of the Board of Trustees.

WALTER C. TEAGLE WILLIAM J. ELSER, JOHN A. HARTWELL, of the Faculty.

I. THORN WILLSON, Secretary.

#### THE FACULTY AND TEACHING STAFF

LIVINGSTON FARRAND, A.B., M.D., PH.D., L.H.D., LL.D.

President of Cornell University.

A.B. 1888, A.M. 1891, Princeton; M.D. 1891, Columbia; Ph.D. 1924, Renssalaer; L.H.D. 1922, Hobart; LL.D. 1914, Colorado College and Denver, 1917 Michigan, 1919 Colorado, 1922 Union, Princeton, and Colgate, 1923 Yale, 1925 Pennsylvania and Dartmouth, 1927 Toronto, 1929 Columbia.

Instructor 1893–1901, Adjunct Professor of Psychology 1901–1903, Professor of Anthropology, Columbia, 1903–1914; President, University of Colorado, 1914–1919; Director Tuberculosis Commission in France, International Health Board, 1917–1918; Chairman Central Committee, American Red Cross, 1919–1921;

President, Cornell University, 1921-.

G. CANBY ROBINSON, A.B., M.D., LL.D.

Director, New York Hospital-Cornell Medical College Association; Professor of Medicine.

A.B. 1899, M.D. 1903, Johns Hopkins; L.L.D. 1928, Washington University.
Assistant in Anatomy, Cornell, 1903–1904; Associate, Rockefeller Institute, 1910–1913; Associate Professor of Medicine, Washington University, 1913–1920, and Dean, 1917–1920; Professor of Medicine, Vanderbilt, 1920–1928, and Dean, 1920–1928; Acting Professor of Medicine, Johns Hopkins, 1921–1922; Professor of Medicine, Cornell, 1928–, and Director of the New York Hospital-Cornell Medical College Association, 1928–.

#### PROFESSORS EMERITUS

Frederic S. Dennis, A.B., M.D., F.R.C.S.

Professor of Clinical Surgery, Emeritus.

GEORGE THOMPSON ELLIOTT, A.B., M.D.

Professor of Clinical Medicine, Department of Dermatology, *Emeritus*.

J. CLIFTON EDGAR, Ph.B., A.M., M.D.

Professor of Obstetrics, Emeritus.

George Woolsey, A.B., M.D.

Professor of Clinical Surgery, Emeritus.

IRVING S. HAYNES, Ph.B., M.D., Sc.D.

Professor of Clinical Surgery, Emeritus.

JOHN ROGERS, A.B., PH.D., M.D.

Professor of Clinical Surgery, Emeritus.

Frederick Whiting, A.M., M.D.

Professor of Clinical Medicine,

Department of Otology, Emeritus.

#### MEMBERS OF THE FACULTY

#### **PROFESSORS**

JAMES EWING, M.D.

Professor of Pathology.

A.B. 1888, A.M. 1891, Sc.D. 1923, Amherst, 1913, Pittsburgh.

Clark Fellow in Pathology 1894-1897, Instructor in Clinical Pathology 1897-1899, Columbia; Professor of Pathology, Cornell, 1899-.

Director of Cancer Research, Memorial Hospital.

LEWIS A. CONNER, M.D.

Professor of Medicine.

Ph.B. 1887, Yale; M.D. 1890, Columbia.

Instructor in Medicine 1898-1904, Professor of Clinical Medicine 1900-1916, Professor of Medicine, Cornell, 1916-.

Attending Physician, New York Hospital.

GRAHAM LUSK, PH.D.

Professor of Physiology.

Ph.B. 1887, Columbia; Ph.D. 1891, Munich; A.M. (Hon.) 1897, Sc.D. 1908, Yale;

LL.D. 1923, Glasgow; F.R.S. 1900, Edinburgh; M.D. 1929, Munich.

Instructor 1891–1892, Assistant Professor 1892–1895, Professor of Physiology 1895–1898, Yale; Professor of Physiology, New York University and Bellevue Hospital 1898–1909; Professor of Physiology, Cornell, 1909–. Member of the National Academy of Sciences.

Scientific Director, Russell Sage Institute of Pathology.

ROBERT A. HATCHER, M.D.

Professor of Pharmacology.

Ph.G. 1889, Philadelphia College of Pharmacy; M.D. 1898, Tulane; Sc.D. 1929 Columbia.

Professor of Materia Medica, Cleveland School of Pharmacy, 1899–1904; Instructor in Pharmacology, Western Reserve, 1901–1904; Instructor 1904–1906, Assistant Professor 1906–1908, Professor of Pharmacology, Cornell, 1908–.

Charles R. Stockard, Ph.D., M.D.

Professor of Anatomy.

B.S. 1899, M.S. 1901, Mississippi A. and M. College; Ph.D. 1906, Columbia; Sc.D.

1920, Cincinnati; M.D. 1922, Wurzburg.

Assistant in Zoology, Columbia, 1905–1906; Assistant in Histology and Embryology 1906–1908, Instructor 1908–1909, Assistant Professor of Embryology 1909–1911, Professor of Anatomy, Cornell, 1911–. Member of National Academy of Sciences.

WILLIAM J. ELSER, M.D. Professor of Bacteriology and Immunology.

M.D. 1895, Bellevue Hospital Medical College.

Assistant in Pathology 1901–1904, Instructor 1904–1908, Assistant Professor of Bacteriology 1908–1909, Professor of Bacteriology and Immunology, Cornell, 1900–.

Director, Division of Laboratories, New York Hospital.

STANLEY R. BENEDICT, Ph.D.

Professor of Chemistry.

A.B. 1906, University of Cincinnati; Ph.D. 1908, Yale.

Instructor in Chemistry, Syracuse, 1908–1909; Associate in Biological Chemistry, Columbia, 1909–1910; Assistant Professor of Chemical Pathology 1910–1911, Assistant Professor 1911–1912, Professor of Chemistry, Cornell, 1912–. Member of the National Academy of Sciences.

Director, Department of Chemistry, Memorial Hospital.

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#### CHARLES L. GIBSON, M.D.

Professor of Surgery.

A.B. 1886, M.D. 1889, Harvard.

Clinical Instructor in Urology, 1900-1902, Instructor in Surgery 1902-1908, Professor of Clinical Surgery 1907-1915, Adjunct Professor 1916-1917, Associate Professor 1917-1918, Professor of Surgery, Cornell, 1918-. Consulting Surgeon, New York Hospital.

## GEORGE GRAY WARD, M.D. Professor of Obstetrics and Gynecology.

M.D. 1891, Long Island College Hospital.

Professor of Diseases of Women, New York Post-Graduate, 1905-1916; Instructor 1898-1914, Lecturer on Gynecology 1914-1916, Assistant Professor 1916-1917, Associate Professor 1917-1921, Professor of Obstetrics and Gynecology, Cornell, 1921-.

Surgeon in Chief, Woman's Hospital.

#### OSCAR M. SCHLOSS, M.D.

Professor of Pediatrics.

B.S. 1901, Alabama Polytechnic Institute: M.D. 1905, Johns Hopkins. Assistant in Pediatrics, New York University and Bellevue Hospital 1909-1912; Assistant 1912-1914, Instructor, Columbia, 1914-1918; Professor of Pediatrics, Harvard, 1921-1923; Professor of Pediatrics, Cornell, 1918-1921 and 1923-. Visiting Physician, New York Nursery and Child's Hospital.

### JOHN A. HARTWELL, M.D.

Associate Professor of Surgery, Professor of Clinical Surgery.

Ph.B. 1889, M.D. 1892, Yale.

Instructor in Physiology 1898-1900, Demonstrator of Anatomy 1900-1902, Assistant Professor of Physiology 1902-1909, Professor of Clinical Surgery 1909-, Assistant Professor 1911-1918, Associate Professor of Surgery, Cornell, 1918-.

#### EUGENE F. DuBois, M.D.

Professor of Medicine.

A.B. 1903, Harvard; M.D. 1906, Columbia.

Medical Director, Russell Sage Institute of Pathology 1912-1917 and 1919-; Lecturer in Pathological Physiology 1912-1917, Associate Professor 1919-1930, Professor of Medicine, Cornell, 1930-.

Director, Second Medical Division, Bellevue Hospital.

#### Nellis B. Foster, M.D.

Associate Professor of Medicine.

B.S. 1898, Sc.D. 1926, Amherst; M.D. 1902, Johns Hopkins.

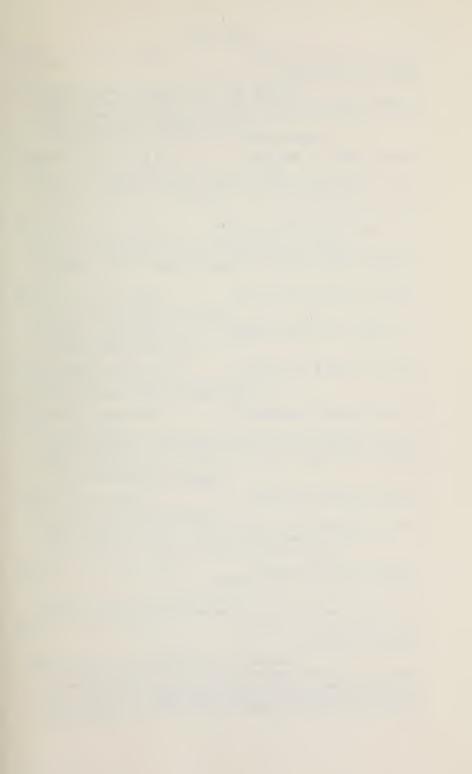
Lecturer in Therapeutics 1907-1910, Instructor 1907-1908, Associate in Physiological Chemistry, Columbia, 1909-1912; Professor of Medicine, Michigan, 1917-1919; Assistant Professor 1913-1916, Associate Professor of Medicine, Cornell, 1919-. Associate Physician, Chief of Metabolism Laboratory, New York Hospital.

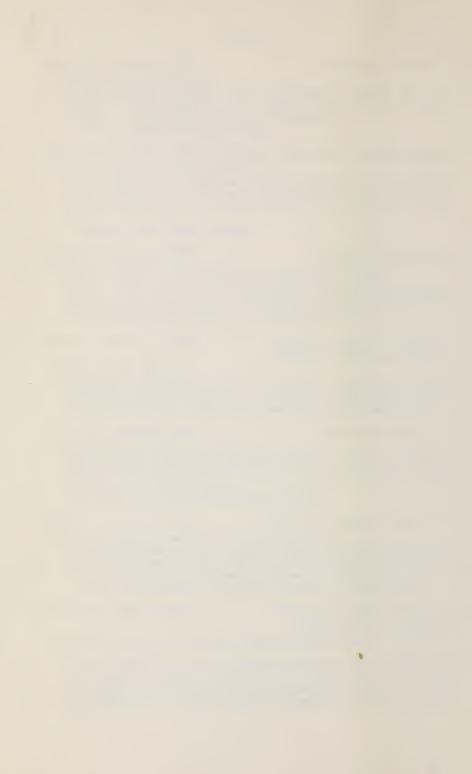
### CHARLES L. DANA, M.D.

Professor of Clinical Medicine, Department of Neurology.

A.B. 1872, A.M. 1875, LL.D. 1905 Dartmouth, 1927 Edinburgh; M.D. 1875, Colum-

Professor of Physiology, Woman's Medical College of the New York Infirmary for Women and Children 1880-1888; Professor of Nervous Diseases, Dartmouth, 1884; Professor of Nervous and Mental Diseases, New York Post-Graduate 1886-1898; Professor of Clinical Medicine, Department of Neurology, Cornell, 1898-.





EDWARD L. KEYES, M.D.

Professor of Clinical Surgery, Department of Urology.

A.B. 1892, Ph.D. 1901, Georgetown; M.D. 1895, Columbia.

Adjunct Professor of Urology, New York Polyclinic 1908–1910; Professor of Urology, New York University and Bellevue 1910–1911; Professor of Clinical Surgery, Department of Urology, Cornell 1911–.

Consulting Urologist to Bellevue and Memorial Hospitals.

ALFRED S. TAYLOR, M.D. Professor of

Professor of Clinical Surgery.

Ph.B. 1891, A.M. 1892, Brown; M.D. 1895, Columbia. Instructor, Columbia, 1898–1910; Professor of Operative Surgery, 1913–1917, Lecturer on Surgery, 1911–1918, Professor of Clinical Surgery, Cornell, 1915–1923 and 1926–.

OTTO H. SCHULTZE, M.D. Professor of Medical Jurisprudence.

A.B. 1886, College of the City of New York; M.D. 1889, Columbia.

Instructor in Pathology 1898–1905, Lecturer 1905–1908, Assistant Professor of Pathological Anatomy 1909–1916, Professor of Medical Jurisprudence, Cornell, 1917–.

WILLIAM C. THRO, M.D. Professor of Clinical Pathology.

B.S. 1900, A.M. 1901, M.D. 1907, Cornell.

Instructor in Bacteriology, New York University and Bellevue 1909–1910; in Histology and Embryology 1901–1905, Assistant Professor 1910–1918, Professor of Clinical Pathology, Cornell, 1918–.

ALEXANDER LAMBERT, M.D. Professor of Clinical Medicine. A.B. 1884, Ph.B. 1885, Yale; M.D. 1888, Columbia.

Professor of Clinical Medicine, Cornell, 1898-.

Walter L. Niles, M.D.

Professor of Clinical Medicine.

M.D. 1902, Cornell.

Instructor in Medicine 1904, Assistant Professor of Clinical Medicine 1913–1918, Assistant Professor of Medicine 1918–1920, Dean 1918–1929, Professor of Clinical Medicine, Cornell, 1920–.

Visiting Physician Bellevue Hospital.

T I -- MD

Burton J. Lee, M.D.

Professor of Clinical Surgery.

Ph.B. 1894, Yale; M.D. 1898, Columbia.

Instructor in Clinical Surgery 1909–1912, and in Surgical Pathology 1913–1915, Assistant Professor 1916–1917, Professor of Clinical Surgery, Cornell, 1917–. Clinical Director and Attending Surgeon, Memorial Hospital.

CHARLTON WALLACE, M.D. Professor of Clinical Surgery,
Department of Orthopedic Surgery.

A.B. 1894, Transylvania; M.D. 1898, Columbia.

Professor of Clinical Surgery, Department of Orthopedic Surgery, Cornell, 1913-.

JOHN C. TORREY, Ph.D. Professor of Public Health and Preventive Medicine.

A.B. 1898, Sc.D. 1922, Vermont; Ph.D. 1902, Columbia.

Assistant in Zoology, Columbia, 1900–1901; Assistant in Histology and Bacteriology 1904–1905, Fellow 1905–1906, Assistant 1908–1909, Instructor 1909–1910, Assistant Professor of Experimental Pathology 1910–1916, Lecturer 1908–1916, Professor of Hygiene 1916–1927, Professor of Public Health and Preventive Medicine, Cornell, 1927–.

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JAMES M. HITZROT, M.D.

Professor of Clinical Surgery.

A.B. 1897, Princeton; M.D. 1901, Johns Hopkins.

Instructor in Surgery 1904-1912, Assistant Professor 1912-1920, Professor of Clinical Surgery, Cornell, 1920-.

Attending Surgeon, New York Hospital.

HANS J. SCHWARTZ, M.D.

Professor of Clinical Medicine, Department of Dermatology.

M.D. 1898, McGill.

Instructor in Clinical Pathology 1911-1920, Clinical Instructor 1907-1920, Professor of Clinical Medicine, Department of Dermatology, Cornell, 1920-.

HARRY M. IMBODEN, M.D.

Professor of Roentgenology.

A.B. 1899, Lebanon Valley; M.D. 1903, Jefferson.

Instructor in Surgery, Presbyterian Hospital 1916-1922; Professor of Roentgenology, Cornell, 1922-.

Foster Kennedy, M.D.

Professor of Clinical Medicine, Department of Neurology.

M.B., B.Ch. 1906, Royal University Ireland; M.D. 1910, Dublin. Instructor 1911-1915, Assistant Professor 1916-1917, Associate Professor 1917-1925, Professor in Clinical Medicine, Department of Neurology, Cornell, 1925-. Visiting Neurologist, Bellevue Hospital.

MALCOLM GOODRIDGE, M.D.

Professor of Clinical Medicine.

A.B. 1894, Princeton; M.D. 1898, Columbia. Instructor in Pediatrics, Columbia, 1905-1909; Assistant Professor of Therapeutics 1916-1923, Professor of Clinical Medicine, Cornell, 1923-.

Pol N. Coryllos, M.D.

Professor of Clinical Surgery and Research Associate in Surgery.

A.B., M.D. 1901, Athens; B.S., M.S., M.D. 1914, Paris. Instructor in Anatomy 1903-1907, Clinical Professor of Gynecology 1911-1914, Paris; Professor of Surgery, Athens, 1919-1923; Assistant in Surgical Research 1926-1930, Research Associate in Surgery 1930-, Professor of Clinical Surgery, Cornell, 1924-.

ARTHUR F. COCA, M.D.

Professor of Immunology.

A.B. 1896, M.A. 1899, Haverford; M.D. 19∞, Pennsylvania. Assistant in Pathology 1900-1902, in Histology 1902-1903, Demonstrator of Pathology, Pennsylvania, 1903-1905; Assistant in Chemistry, Cancer Institute, Heidelberg, 1907-1909; Instructor in Experimental Pathology 1911-1915, in Pathology 1916-1917, in Immunology 1918-1921, Assistant Professor of Immunology 1921-1924, Professor of Immunology, Cornell, 1924-.

JOSHUA E. SWEET, M.D.

Professor of Surgical Research.

A.B. 1897, A.M. 1900, Sc.D. 1922, Hamilton; M.D. 1901, Giessen. Fellow in Hygiene, Pennsylvania, 1901-1902; Rockefeller Institute 1902-1906, Assistant Professor 1906-1917, Professor of Surgical Research, Pennsylvania, 1917-1926; Professor of Surgical Research, Cornell, 1926-.

John W. Churchman, M.D.

Professor of Experimental Therapeutics.

A.B. 1898, A.M. 1901, Princeton; M.D. 1902, Johns Hopkins; A.M. 1915, Yale. Instructor in Surgery, Johns Hopkins, 1909–1911; Assistant Professor 1912–1914, Professor 1914–1919, Yale; Associate in Hygiene 1923–1925, Associate Professor 1925–1926, Professor of Experimental Therapeutics, Cornell, 1926–.

BERNARD SAMUELS, M.D.

Professor of Clinical Surgery, Department of Ophthalmology.

M.D. 1907, Jefferson.

Voluntary Assistant, Prague, 1910–1913; Clinical Instructor 1914–1922, Assistant Professor 1922–1927, Professor of Clinical Surgery, Department of Ophthalmology, Cornell, 1927–.

HAROLD E. SANTEE, M.D.

Professor of Clinical Surgery.

A.B. 1904, M.D. 1908, Cornell.

Instructor in Obstetrics 1914–1915, in Clinical Surgery 1916–1922, in Operative Surgery 1918–1920, Assistant Professor 1923–1928, Professor of Clinical Surgery, Cornell, 1928–.

Visiting Surgeon and Director, Second Surgical Division, Bellevue Hospital.

WILLIAM L. RUSSELL, M.D.

Professor of Psychiatry.

M.D. 1885, New York University.

Professor of Psychiatry, Cornell, 1928-. General Psychiatric Director, New York Hospital.

MORTIMER W. RAYNOR, M.D. Professor of Clinical Psychiatry.

M.D. 1904, Syracuse.

Lecturer on Psychopathology 1921–1922, Assistant Professor 1922–1927, Clinical Professor of Psychiatry, Columbia, 1927–1928; Professor of Clinical Psychiatry, Cornell, 1928–.

CHARLES E. FARR, M.D.

Professor of Clinical Surgery.

A.B. 1898, M.D. 1903, Yale.

Instructor in Surgery 1921–1922, Assistant Professor 1922–1927, Professor of Clinical Surgery, Cornell, 1927–.

Associate Attending Surgeon, New York Hospital.

THOMAS G. TOUSEY, M.D., Major, M. C., U. S. Army,
Professor of Military Science and Tactics.

M.D. 1906, Cornell.

Instructor in Department of Training, Carlisle, 1921–1927; Professor of Military Science and Tactics, New York University and Bellevue, 1930, Cornell, 1930–.

DAYTON J. EDWARDS, Ph.D. Associate Professor of Physiology.

B.S. 1906, Maine; Ph.D. 1913, Columbia.

Instructor in Biology, Maine, 1906–1908; Assistant in Zoology, Columbia, 1908–1909; Instructor in Physiology, College of the City of New York, 1913–1917; Instructor 1918–1919, Lecturer 1919–1921, Assistant Professor 1921–1922, Associate Professor of Physiology, Cornell, 1922–.

CHARLES V. MORRILL, Ph.D. Associate Professor of Anatomy.

A.M. 1906, Ph.D. 1910, Columbia.

Assistant in Zoology, Columbia, 1906-1908; Lecturer in Histology and Embryology, Syracuse, 1908-1910; Instructor in Anatomy, New York University and Bellevue, 1910-1915; Instructor 1915-1919, Assistant Professor 1919-1923, Associate Professor of Anatomy, Cornell, 1923-.

A. RAYMOND STEVENS, M.D. Associate Professor of Clinical Surgery, Department of Urology.

A.B. 1896, M.D. 1903, Johns Hopkins University.

Associate Professor of Clinical Surgery, Department of Urology, Cornell, 1925-. Attending Surgeon in charge of Urological Department, Bellevue Hospital.

Douglas Symmers, M.D. Assistant Professor of Pathological Anatomy.

M.D. 1901, Jefferson.

Research Fellow in Pharmacology, Columbia, 1905-1906; Instructor 1907-1911, Professor of Pathology 1911-1916, Professor of Pathological Anatomy, New York University and Bellevue, 1918-; Assistant Professor of Pathological Anatomy, Cornell, 1918-.

Director of Laboratories, New York City Department of Hospitals.

HENRY H. M. LYLE, M.D. Assistant Professor of Surgery.

M.D. 1900, Columbia.

Instructor 1903–1913, Clinical Professor of Surgery, Columbia, 1913–1919; Assistant Professor of Surgery, Cornell, 1919–. Attending Surgeon, St. Luke's Hospital.

JOSEPH P. HOGUET, M.D. Assistant Professor of Clinical Surgery. A.B. 1904, Harvard; M.D. 1907, Columbia.

Instructor in Surgery 1911-1922, Assistant Professor of Clinical Surgery, Cornell,

CARY EGGLESTON, M.D. Assistant Professor of Clinical Medicine.

M.D. 1907, Cornell. Instructor 1911-1918, Assistant Professor of Pharmacology 1918-1923, Instructor in Therapeutics 1920-1921, Assistant Professor of Clinical Medicine, Cornell, 1923-.

JOHN C. A. GERSTER, M.D. Assistant Professor of Clinical Surgery. A.B. 1902, M.D. 1905, Columbia.

Instructor in Operative Surgery 1914-1919, Assistant Professor of Clinical Surgery, Cornell, 1919-.

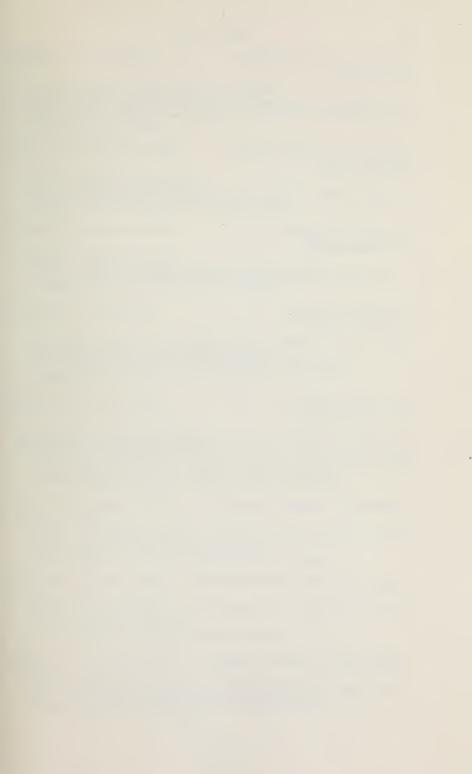
ELISE S. L'ESPERANCE, M.D. Assistant Professor of Pathology. M.D. 1899, Woman's Medical College of New York Infirmary.

Assistant 1910-1912, Instructor 1912-1920, Instructor in Surgical Pathology 1918-, Assistant Professor of Pathology, Cornell, 1920-.

Serologist, Memorial Hospital.

ARTHUR H. CILLEY, M.D. Assistant Professor of Clinical Surgery, Department of Orthopedic Surgery.

A.B. 1893, Princeton; M.D. 1896, Columbia. Instructor in Urology, New York Post-Graduate, 1902-1913; Clinical Professor of Orthopedic Surgery, New York Polyclinic, 1926-1929; Clinical Instructor 1914-1920, Assistant Professor of Clinical Surgery, Department of Orthopedic Surgery, Cornell, 1920-.





ROBERT A. COOKE, M.D.

Assistant Professor of Applied Immunology.

A.B. 1900, A.M. 1904, Rutgers; M.D. 1904, Columbia.

Assistant in Physiology 1908-1909, Assistant in Experimental Therapeutics 1910-1915, Lecturer on Applied Immunology 1921-1922, Assistant Professor of Applied Immunology, Cornell, 1922-.

Assistant Professor of Obstetrics LILLIAN K. P. FARRAR, M.D. and Gynecology.

A.B. 1896, Boston; M.D. 1900, Cornell.

Instructor, New York Post-Graduate, 1909-1916; Instructor 1916-1922, Assistant Professor of Obstetrics and Gynecology, Cornell, 1922-.

ARTHUR L. HOLLAND, M.D.

Assistant Professor of Clinical Medicine.

M.D. 1897, New York University.

Instructor 1916-1921, Assistant Professor of Clinical Medicine, Cornell, 1921-. Assistant Attending Physician, New York Hospital.

Russell L. Cecil, M.D.

Assistant Professor of Clinical Medicine.

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Professor of Zoology, Murcia, 1916–1920; Research Fellow, Spanish Government, 1917–1919; Assistant in Zoology, Columbia, 1918–1919; Research Associate, Carnegie Institute, 1919–1920; Instructor 1920–1926, Associate 1926–1928, Clinical Assistant Professor of Anatomy, Cornell, 1928–.

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Assistant in Dairy Bacteriology, Illinois Agricultural Experimental Station 1915–1917; Fellow, Missouri Botanical Garden, 1919–1920; Assistant in Experimental Surgery, Washington University, 1920–1924; Fellow in Medicine, National Research Council at Cornell, 1924–1926; Instructor in Physiology, Yale, 1926–1928; Assistant Professor of Physiology, Cornell, 1928–.

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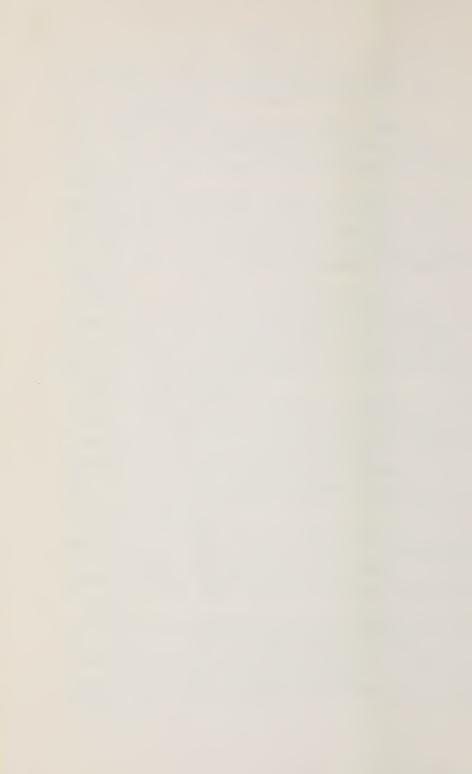
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EUGENE F. DuBois, M.D.

Assistant Physicians

EMIL A. FALK, M.D. HARRY I. WEINSTOCK, M.D.

DEPARTMENT OF MEDICINE (TUBERCULOSIS)

Physician

EDMUND R. P. JANVRIN, M.D.

DEPARTMENT OF MEDICINE (CARDIAC)

Physician

BERTON LATTIN, M.D.

Assistant Physicians

ARTHUR M. MASTER, M.D.

ADA C. REID, M.D.

DEPARTMENT OF MEDICINE (METABOLISM)

Physician

HENRY JAMES SPENCER, M.D.

Assistant Physician

RALPH A. ECKHARDT, M.D. WALTER S. McClellan, M.D.

DEPARTMENT OF MEDICINE (PERIODIC HEALTH EXAMINATIONS)

Physicians

HARRY H. HAMILTON, M.D. (in charge) HAROLD S. BELCHER, M.D.

Assistant Physicians

EMMANUAL W. BILLARD, M.D. ANNA PLATT, M.D.

#### DEPARTMENT OF SURGERY

Chief of Clinic

Russel H. Patterson, M.D.

Surgeon

JOHN E. SUTTON, JR., M.D.

Pol N. Coryllos, M.D. (Thoracic)

Assistant Surgeons

ROBERT K. FELTER, M.D.

H. S. F. COOPER, M.D.

DAVID M. WEEKS, M.D.,

DEPARTMENT OF SURGERY (DENTAL)

Surgeon

Louis Wack, D.D.S.

Assistant Surgeon
Max Halpern, D.D.S.

DEPARTMENT OF PEDIATRICS

Clif (Clif)

Chief of Clinic

PHILIP MOEN STIMSON, M.D.

Physician

HELEN HARRINGTON, M.D.

Assistant Physicians

George C. Ludlow, M.D. Virginia T. Weeks, M.D. Eli Yale Shorr, M.D.

DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

Chief of Clinic

JOHN F. McGRATH, M.D.

Surgeon

LYNN L. FULKERSON, M.D.

Assistant Surgeons

S. Schmerzler, M.D. Louis P. Biro, M.D. D. Rees Jensen, M.D. Thomas A. Iovino, M.D. Isabel Knowlton, M.D. Helene Spencer, M.D.

## DEPARTMENT OF UROLOGY

Chief of Clinic

Howard S. Jeck, M.D.

Surgeon

WILLIAM R. DELZELL, M.D.

#### Assistant Surgeons

MIGUEL ALVAREZ, M.D.
THOMAS J. KIRWIN, M.D.
WENDELL J. WASHBURN, M.D.
ROBERT T. FINDLAY, M.D.

LISLE B. KINGERY, M.D. LEO MARQUITH, M.D. ROBERT F. ZEISS, M.D. H. E. S. ROOT, M.D.

#### DEPARTMENT OF NEUROLOGY

Chief of Clinic AARON BELL, M.D.

## Physicians

ALFRED H. EHRENCLOU, M.D.

Nathaniel E. Silverman, M.D.

## Assistant Physicians

THEODORE W. NEUMAN, M.D. PATRICK H. CARROLL, M.D. MIGUEL STEINBERG, M.D. S. BERNARD WORTIS, M.D.

Wendell Mitchell, M.D. Lucy C. Miller, M.D. Isabel London, M.D. Kate Constable, M.D.

#### DEPARTMENT OF PSYCHIATRY

Chief of Clinic
Joseph P. Eidson, M.D.

## Attending Physicians

AUGUST E. WITZEL, M.D. Z. RITA PARKER, M.D. HILDA WOOD EIDSON, M.D. HANS C. SYZ, M.D. THOMAS H. HAINES, M.D. MICHAEL P. LONERGAN, M.D. STANLEY KING, M.D. EUGENE C. CICCARELLI, M.D.

Psychologist
Elaine Kinder, Ph.D.

#### DEPARTMENT OF DERMATOLOGY

Chief of Clinic
J. Frank Fraser, M.D.

## Physicians

RAY H. RULISON, M.D.

ARTHUR F. KRAETZER, M.D.

## Assistant Physicians

Andrew J. Gilmour, M.D. John H. Harris, M.D. Julia V. Lichtenstein, M.D. Henry D. Niles, M.D. Merlin J. Stone, M.D.

#### DEPARTMENT OF OTOLOGY

Chief of Clinic

GERVAIS W. McAULIFFE, M.D.

Surgeons

Емметт С. Гітсн, М.Д.

THOMAS J. GARRICK, M.D.

Assistant Surgeons

CARL FORNELL, M.D.

Edward M. Pullen, M.D. Benjamin Brodie, M.D.

Jacob Applebaum, M.D. Benjal Herbert Graebner, M.D.

## DEPARTMENT OF LARYNGOLOGY AND RHINOLOGY

Chief of Clinic

J. DASHIELL WHITHAM, M.D.

Surgeon

THOMAS A. MULCAHY, M.D.

Assistant Surgeons

Anne M. Belcher, M.D. Thomas J. Garrick, M.D. Емметт С. Гітсн, М.Д.

SAMUEL F. KELLY, M.D. WILLIAM H. AYRES, M.D.

HERBERT GRAEBNER, M.D. WILLIA JAMES O. MACDONALD, M.D.

#### DEPARTMENT OF ORTHOPEDIC SURGERY

Chief of Clinic

ARTHUR H. CILLEY, M.D.

Surgeon

JOHN S. WARE, M.D.

Assistant Surgeon

JOSEPH H. GASTON, M.D.

#### DEPARTMENT OF ROENTGENOLOGY

Chief of Clinic

JOHN R. CARTY, M.D.

Surgeon

Francis J. Osborne, M.D.

Assistant Surgeons

Douglass Palmer, M.D. William M. Archer, M.D. Michael Lake, M.D.

#### DEPARTMENT OF OPHTHALMOLOGY

Chief of Clinic
ALGERNON B. REESE, M.D.

Surgeons

TRUMAN L. BOYES, M.D.

MILTON L. BERLINER, M.D.

Assistant Surgeons

SAMUEL SCHWARTZMAN, M.D. SAMUEL FORSTER, M.D. HAROLD G. NOYES, M.D.

#### GENERAL STATEMENT

#### HISTORY

ORNELL UNIVERSITY MEDICAL COLLEGE was established by the Board of Trustees of Cornell University on April 14, 1898, when they elected Dr. William M. Polk Director of the College and Dean of the Medical Faculty, and appointed six professors. The Medical College was made possible by the munificence of Colonel Oliver H. Payne, who provided the funds for the erection of the main building of the College, and pledged it his support. For several years he provided funds for the annual support of the College, and later made a generous provision for its permanent endowment by a gift of over four million dollars to the University.

In October, 1898, instruction began in temporary quarters. As the Medical College admitted a number of students with advanced standing, Cornell University granted the degree of Doctor of Medicine

for the first time in 1899.

In order to link up as far as could be done the Medical College in New York City with the University of which it is a part, instruction in the medical sciences was begun at Ithaca the same year that the Cornell Medical College came into being in New York City. The first two years of medical studies could be pursued either at Ithaca or in New York, while all students joined in New York City for the last two years, consisting mainly of clinical study, and the application of the medical sciences in the practice of medicine in its many divisions. The plan providing instruction at Ithaca was changed in 1908, as it was felt that the medical students should come earlier under the influence of the teaching centered about the various New York hospitals, and since that date only the first year of medical instruction has been offered on the campus of the University at Ithaca.

The avowed purpose of the Cornell University Medical College has been from its foundation two-fold, the development of physicians of the best type and the extension of knowledge by means of research in the nature and cure of disease. From the beginning therefore the Medical Faculty has held the attitude which constitutes the University School. Teaching and training alone do not fulfill its obligations, but it is committed to the task of adding to the store of medical knowledge, of seeking for new means of combatting disease, and of constantly searching into the mysteries that disturb health and well-

being in order that all mankind may be benefited.

THE NEW YORK HOSPITAL-CORNELL MEDICAL COLLEGE ASSOCIATION.—In June, 1927, an agreement was entered into between Cornell University and the New York Hospital by which the New York Hospital-Cornell Medical College Association was formed.

The purpose of this Association is to associate organically the two institutions and to co-operate the medical, educational and scientific activities which have been previously carried on by each institution.

The Association is operated under the supervision of a Joint Administrative Board composed of three Governors of the New York Hospital, three representatives of the Trustees of Cornell University and one other member elected by the appointed members. The Joint Administrative Board is composed as follows:

Edward W. Sheldon, *Chairman* William Woodward Frank L. Polk

Livingston Farrand J. DuPratt White Walter L. Niles

J. PIERPONT MORGAN

Additional endowment has been secured by each institution. A group of buildings is being erected along the East River between 68th and 71st Streets, adjoining the Rockefeller Institute for Medical Research. The new plant will afford separate buildings for each of the various laboratory departments, and will include approximately 1000 hospital beds. Provision will be made for medicine, surgery, obstetrics and gynecology, pediatrics and psychiatry in five distinct clinical institutes.

The faculty of the Medical College and the professional staff of the Hospital are to be reorganized so as to form one body established on

a University basis.

The new plant will be completed by the autumn of 1932. When it is occupied it will afford very favorable conditions for the conduct of medical education, for the pursuit of medical research, and for the care of patients in all phases of medical practice.

#### FACILITIES FOR INSTRUCTION

THE MAIN COLLEGE BUILDING at present comprises a Medical School and Dispensary, with principal entrance on First Avenue, opposite Bellevue Hospital, and occupies the entire block between Twenty-seventh and Twenty-eighth Streets on First Avenue. The building is devoted to the Department of Anatomy, Clinical Pathology, Chemistry, Pathology, Bacteriology, Physiology, Medicine and their laboratory equipment.

THE CORNELL UNIVERSITY MEDICAL COLLEGE CLINIC, located in the main College building, is fully equipped for purposes of instruction.

The attendance in the Clinic averages about 550 patients daily and annually includes about 140,000 visits. The organization is such as to bring the Clinic into closest touch with the Laboratory and research facilities of the College.

The Department of Roentgenology as well as the Laboratory of Clinical Pathology is in direct connection with the Clinic, and by cooperation and co-ordination of work their services are placed at the

constant disposal of the various other departments of the Clinic for the diagnosis and investigation of disease and for purposes of instruction.

Medical Social Service is included as one of the functions of the Clinic. This service is of assistance in discovering environmental factors in the cause and prevention of disease. It extends the scope of the medical staff in accord with the postulates of adequate medical and hospital service.

The Library is supplied with current periodicals in German, French and English, which include nearly all of the more important journals in the field of medical science, and the back files of these periodicals include 12,000 bound volumes and 5,000 selected reprints and monographs. There is also a students' library of recent textbooks. Every effort is made to maintain a library commensurate with the needs of the College. A special reading room is provided for the convenience of students. A trained Librarian is in attendance to supply references and direct their work.

In addition to the College Library, students enjoy certain privileges at the Library of the New York Academy of Medicine, Fifth Avenue and 103d Street, the second largest medical library in the United States, and at the various public libraries of the city.

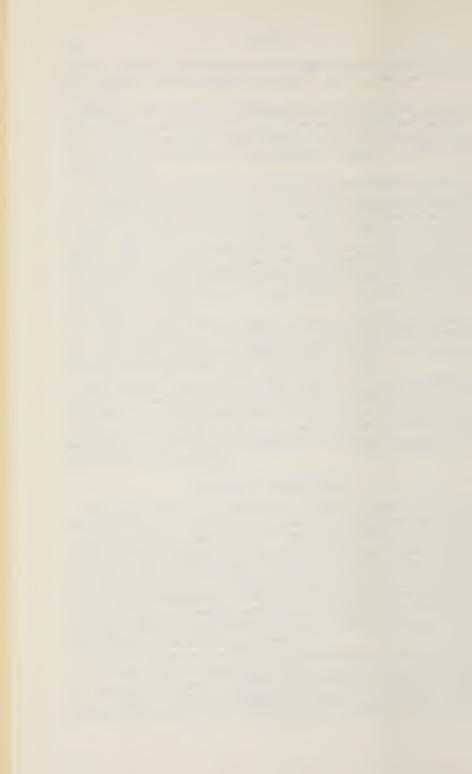
THE LOOMIS LABORATORY (founded 1886 by the same munificent hand) serves the purpose of undergraduate instruction, in connection with the laboratories in the College building. It has also been reorganized as a research laboratory, and special departments have been established in bacteriology, physiological chemistry, experimental medicine and pharmacology.

## CLINICAL FACILITIES

NEW YORK HOSPITAL.—The Medical College, through the courtesy of the Governors of the New York Hospital, has long been accorded certain privileges for instruction in its wards. On the first of January, 1913, a definite arrangement was established between Cornell University and the New York Hospital, through the donation to the hospital of a generous fund by Mr. George F. Baker, a Governor of the Hospital, upon the condition that thereafter the pathological and half the entire medical and surgical services of the institution should be definitely assigned to the Cornell University Medical College for the advancement of its teaching and research.

By this arrangement the University nominates the Attending Staff of its division and the Laboratory Staff and secures the admission of its students to the wards as clinical clerks, thereby enabling the College to make a definite provision in its course of instruction and research for work in the New York Hospital. Furthermore, the Labo-





ratory Staffs of the different departments of the Medical College are placed at the service of the Hospital for the purpose of extending its scientific work.

The hospital service thus assigned to the College comprises 100 beds. This service is exceedingly active. It includes several thousand acute and emergency cases brought in annually from a large ambulance and dispensary district.

Bellevue Hospital.—This hospital, located on First Avenue, directly opposite the Main College building, has 1,200 beds, and re-

ceives 24,000 patients annually.

The hospital is organized in four divisions, one of which has been placed by the Trustees of the hospital at the disposal of the Faculty of the Cornell University Medical College for medical instruction. The services thus intrusted to the College include, continuously, 90 medical beds, 90 surgical beds, 60 to Urology, a Neurological Service, and for one-half the year 54 obstetrical beds, together with equal privileges with the other three divisions, giving continuous opportunity for instruction and research in the additional wards devoted to the treatment of alcoholic diseases, tuberculosis and the psychopathic diseases. There are also available 60 beds for instruction in Gynecology by members of the staff assigned to this duty by the Cornell University Medical College.

The visiting staff of the Second, or Cornell Division is drawn entirely from the Faculty and instructors of the College, and by co-operation with the Medical Board of the Hospital this division has been organized with a view to the best interests of the patients, as well as with a view to furnishing adequate facilities for instruction. The students spend a considerable portion of the fourth year in this hospital as clinical or surgical "clerks," and during the preceding years frequent clinical instruction is conducted in its wards, as fully described under

"Details of the Plan of Instruction."

While Bellevue Hospital is provided with an elaborate Department of Pathology of its own, the scope of the hospital work of the Cornell Division is broadened by the intimate relation existing between the laboratories of the Medical College and the medical service of the hospital. In addition to the staff provided by the hospital, the College maintains a corps of research workers and special assistants who conduct their routine examinations in extension laboratories equipped by the College in rooms adjacent to the wards of the hospital, and who consummate their major investigations in the more completely equipped laboratories of the College building.

The Professors of Medicine and Surgery are directly responsible to the University for the conduct of the instruction in Bellevue Hospital.

MEMORIAL HOSPITAL.—Through the generosity of the late Dr. James Douglas, who provided the Hospital an endowment for the

study and treatment of cancer and allied diseases, the Memorial Hospital became affiliated in 1914 with Cornell University Medical

College.

The conditions upon which this union was consummated place upon Cornell University Medical College the responsibility for the medical and surgical activities of the hospital, subject however, so far as administrative action is concerned, to the approval of its Board of Managers. Cornell University Medical College is required to approve the five medical members of the Board of Managers of the Memorial Hospital, to nominate their successors in case of vacancies, and to name the medical and surgical staff, subject to the approval of the Board of Managers of the Hospital.

Since 1904 the work of the Memorial Hospital in Cancer Research has been conducted in the laboratories of Cornell University Medical College under the general direction of the Department of Pathology, and with the collaboration of heads of other departments. Later through the support of Dr. James Douglas, and the co-operation of the Board of Managers, it has been extended to the laboratories of the Memorial Hospital. A laboratory building accommodating pathology,

biology, chemistry and physics has been erected.

The organization of this work includes: Pathology, Professor Ewing; Bacteriology, Professor Torrey; Chemistry, Professor Benedict; Biology, Professor Stockard; Pathology, Professor L'Esperance.

Clinical studies in the diagnosis, natural history, and treatment of neo-plastic diseases are conducted in the hospital by the members of

the Staff.

THE JOHN E. BERWIND MATERNITY CLINIC.—An affiliation having been consummated between the John E. Berwind Maternity Clinic and Cornell University Medical College, the medical direction of the Clinic is placed under the control of Cornell. The medical staff including the resident and house staffs are appointed by the Clinic, only on nomination by the Medical College.

Cornell students are definitely assigned to the Clinic for practical instruction under the direction of the Professor of Obstetrics and

Gynecology.

Cornell students having been provided for, vacancies in the student staff will be filled by appointment. Application for such assignments should be made to the Superintendent of the Clinic at 125 East 103rd Street, New York City.

THE NEW YORK NURSERY AND CHILD'S HOSPITAL.—By courtesy of the Trustees of this Hospital, Cornell Students are there instructed in Pediatrics. The Hospital offers splendid opportunities for the study of infants and children.

There are seventy-two beds on the Pediatric service, and in addition there is in the same building an active maternity service.

The out patient department has an average yearly attendance of 8,000 infants and children, with special classes in Feeding; Malnutrition; Syphilis; Eczema and Cardiac diseases. Both the indoor and outdoor services are utilized for teaching purposes. The members of the teaching staff have official connection with the hospital.

Woman's Hospital.—By a provision in the Act of Incorporation of the Woman's Hospital, it is open for the purpose of medical education. The splendid facilities of this hospital are used extensively for instruction in Gynecology under the direction of the Chief Surgeon, Dr. George Gray Ward, who is Professor of Obstetrics and Gynecology in the Medical College. Several other members of the staff are also members of the teaching staff of the College and excellent opportunities for clinical and laboratory instruction are offered in this hospital containing 289 beds.

MANHATTAN STATE HOSPITAL, WARD'S ISLAND.—This hospital for the care and treatment of mental diseases, accommodates over 5,000 patients. Through the courtesy of the Superintendent the Department of Psychiatry is enabled to utilize this clinical material for bedside study of patients and for the instruction of students.

OTHER HOSPITALS.—In addition to the above, members of the Faculty of Cornell University Medical College hold appointments in various hospitals and dispensaries of the city, and are thus enabled to utilize for teaching purposes a great quantity and variety of clinical material.

Instruction is conducted at St. Luke's Hospital, Willard Parker Hospital, the Neurological Institute and St. Mary's Hospital.

The Russell Sage Institute of Pathology.—The Russell Sage Institute of Pathology has been affiliated with the Second Medical (Cornell) Division of Bellevue Hospital since 1913. Endowed by Mrs. Russell Sage in 1907, it has provided funds for research work in pathology and medicine. Laboratory space has been generously given by the trustees of Bellevue Hospital and clinical facilities have been furnished by the Cornell Medical Division. The Institute has constructed and equipped a respiration calorimeter and has maintained a metabolism ward adjacent to the general wards of the division. The research workers have been members of the hospital staff and have assisted in the care of patients and the instruction of students. The metabolism ward, chemical laboratories and calorimeter furnish unusual facilities for teaching the diseases of metabolism. Dr. Graham Lusk, professor of physiology, is the scientific director and Dr. Eugene F. DuBois, professor of medicine, is medical director of the Institute.

# REQUIREMENTS FOR ADMISSION AND GRADUATION

The Faculty of the Cornell University Medical College are of the opinion that candidates for admission to the medical profession should possess the liberal culture and general education implied by a college degree in Arts or Science. Since 1907 a standard of admission which requires the baccalaureate degree or its equivalent has been rigidly maintained. Only the following classes of candidates for the degree of M. D. are admitted to the Cornell University Medical College.

I. Graduates of approved colleges or scientific schools; or—

II. Seniors in good standing in approved colleges or scientific schools upon condition that their faculty will permit them to substitute the first year in the Cornell University Medical College for the fourth year of their college course, and will confer upon them the bachelor's degree upon the satisfactory completion of the year's work. No student admitted under this clause is permitted to enter the second year of the curriculum without having obtained a bachelor's degree.

III. Persons who give evidence by examinations that they have acquired an equivalent education to that signified by a bachelor's degree, and training sufficient to enable them to profit by the instruction offered in the Medical College. This rule is intended to apply to

students of foreign Universities.

ALL CANDIDATES FOR ADMISSION shall have satisfactorily completed in an approved college, at least the following minimum requirements, in which a semester hour is the credit value of at least sixteen weeks' work, consisting of one hour of lecture or recitation or two or more hours of laboratory work, per week.

1. Physics, 8 semester hours, including laboratory work.

2. Chemistry, 12 semester hours (8 hours of inorganic, including qualitative analysis and 4 hours of organic chemistry). Quantitative Analysis is recommended but not required. It is advised that students acquire all the knowledge of chemistry possible in their preparatory years.

3. Biology (Zoology), 6 semester hours, including laboratory work.

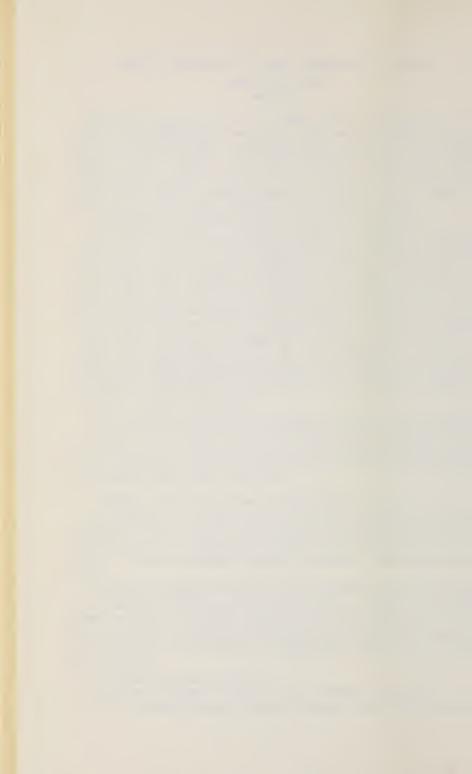
In addition to this minimum requirement, a course in General Histology with Embryology including the early development of the frog and chick is very desirable. Courses in the Comparative Anatomy of Vertebrates and Elementary Histological Technique are also recommended.

4. English, 6 semester hours.

5. Modern language, 6 semester hours—French or German.

6. Two additional semester hours of college credit will be required





in each of the three subjects, Biology, English and Modern language, in which no introductory high school course was offered for admission to college.

The number of students admitted to the first year class is limited to sixty-five. In order that the advantages of the Medical College may be equalized to all parts of the state and country, not more than five students from any one college will be admitted to the first year class,

except from Cornell University.

A Medical Student's Qualifying Certificate is required by the State of New York prior to matriculation as a medical student. Each student accepted for admission will supply a properly attested certificate together with a fee of \$1.00 which will be forwarded by the Secretary of the Medical Faculty to the New York State Department of Education with a request that the Certificate be issued. The requirements for admission are such that each accepted student should receive a Medical Student's Qualifying Certificate.

#### APPLICATIONS FOR ADMISSION

All applications and inquiries regarding admission are to be addressed to the Secretary of the Medical Faculty from whom application forms may be obtained. Applications for admission should be submitted as soon as possible after January 1st of the year during which admission is desired, and should be supported, not later than at the completion of the first semester, by an official transcript of the college record. A recent unmounted photograph of the applicant must be attached to each application.

All applicants, if requested, are required to present themselves in person by appointment at the office of the Secretary at some time

after their credentials have been submitted.

Applications are passed upon by the Committee on Admissions as soon as possible after completion, and candidates are notified of the decision of the Committee. Accepted applicants are required to make a deposit of one hundred dollars within a specified time, normally about two weeks after notification of admission. This deposit is not returnable, but is credited toward the first tuition payment. Failure to make this deposit within the time specified causes the applicant to forfeit his place in the Medical College.

## ADMISSION TO ADVANCED STANDING

Students may be admitted to advanced standing when vacancies occur under the following conditions:

Applications for advanced standing should be filed according to procedure described for admission to the first year class, accepted applicants being required to make the same deposit of one hundred

dollars. Applicants must furnish acceptable evidence of having completed the conditions of admission previously stated, and of having satisfactorily completed in an approved medical school all the work required of students of the class they desire to enter. They must also present a certificate of honorable dismissal from the medical school or schools they have attended.

Examinations may be required on any of the medical courses

taken in another school.

#### **EXAMINATIONS AND PROMOTIONS**

I. Advancement.—Students are advanced in their course from one year to the next upon recommendation by heads of departments after examination in the work of that year, but examinations may, at the discretion of the Head of the Department, include all the work previously covered in the year or years preceding the examination in question. There is, however, no unnecessary repetition of subjects taught from year to year.

II. Examinations.—Examinations for advancement, graduation and admission to advanced standing are held at the close of the year, except that in each course extending through a part of the year only, the examination may be held at the close of the course.

A conditioned student may be re-examined in September. A student who has been conditioned and has failed on re-examination shall withdraw from the College and such student shall not be re-examined nor shall he be re-admitted to this College.

III. Final Examinations.—Annual examinations are held at the end of a course, or coincident group of courses, in the hours allotted to said courses, or during the last week of the session, at the discretion of the head of the department, who will give notice of the date of examination through the office of the Secretary. All such final examinations are conducted under the direction of the head of the Department.

Students who fail in not more than 40 per cent of the required hours of the first year, or 30 per cent of subsequent years, may be re-examined. Examinations for such conditioned students are held in September prior to the opening of the session. All conditions must be satisfactorily passed before entrance into the next succeeding year.

Subjects of Examination for Completion of the First Year

Anatomy.
Physiology.
Chemistry (including laboratory work).

Histology and Embryology.
Neuro-Anatomy.
Military Science.

Subjects of Examination for Completion of the Second Year

Physiology and Nutrition. Medicine. Pathology. Surgery. Bacteriology. Anatomy.

Pathological Anatomy.

Subjects of Examination for Completion of the Third Year

Public Health and Preventive Pathology. Medicine.

Obstetrics. Medicine. Neurology. Urology. Surgery. Pharmacology. Otology. Therapeutics. Ophthalmology.

Laryngology and Rhinology. Clinical Pathology.

Dermatology. Pediatrics.

Psychiatry.

Subjects of Examination for Completion of the Fourth Year AND GRADUATION.

Medicine. Neurology.

Orthopedic Surgery. Surgery. Gynecology. Pediatrics.

No information regarding grades is given from the Office of the Secretary. Students are notified whenever their work is deemed of poor quality, thus serving notice of the necessity for greater effort in order to carry the work of the college.

Any student who indicates by his work or his conduct that he is unfit for the practice of Medicine may, at the discretion of the Faculty,

be required to withdraw from the College at any time.

## REQUIREMENTS FOR GRADUATION

The candidates for the degree of Doctor of Medicine must have attained the age of twenty-one years, and be of good moral character. They must have spent at least four years of study as matriculated medical students, the last of which has been in the Cornell University Medical College. They must have satisfactorily completed all the required work of the medical curriculum, must have passed all prescribed examinations, and be free from indebtedness to the College. At the end of the fourth year every student who has fulfilled these requirements will be recommended to the President and Trustees of Cornell University for the degree of Doctor of Medicine.

## **EXAMINATIONS FOR MEDICAL LICENSURE**

Graduates of Cornell University are admitted unconditionally to the examinations for license to practice Medicine in all states of the United States.

In New York State all requirements for admission to examinations for license should be filed with the State Education Department at least fifteen days before the examinations are held. In 1931 these examinations will be held January 26 to 29, June 22 to 25 and Sept.

28 to October 1 at New York, Albany, Syracuse and Buffalo.

Students and graduates of the Cornell University Medical College are admitted to the examinations of the National Board of Medical Examiners, whose certificate is accepted by the Surgeons-General of the Army and Public Health Service of the United States and by the boards of medical licensure of thirty-nine states, Porto Rico, Hawaii and the Canal Zone. This Certificate is also recognized by the respective authorities of England, Scotland, Ireland and Spain. The dates and places of the examination will be announced as promulgated by the Board.

Graduates of the Cornell University Medical College are admitted to the final examinations for diploma of Licentiate of the Royal College of Physicians of London and Membership of the Royal College of Surgeons of England, upon presenting proper certificates that certain conditions applicable to the foreign universities and colleges, which are

recognized by the examining board, have been complied with.





#### GENERAL INFORMATION

#### FEES AND EXPENSES

All fees for instruction and other charges are paid to the Treasurer's Office of the Medical College.

- academic year, and will be returned, less the amount charged for breakage, at the end of the year.

  Fees for special students and for students in the Graduate School of Cornell University are given under the sections describing the

courses offered to these students.

All students entering Medical College are required to provide themselves with a satisfactory microscope. The necessary books are conservatively estimated to cost about \$50.00 per year.

All students entering upon the study of Medicine should assure themselves that they can carry the financial burdens involved with reasonable certainty up to the time of graduation. It is very desirable that their financial arrangements be such that they will have their entire time and undivided interest during four years for the study of Medicine, and not be required to earn part of their living during this time. Although part time outside work is carried on by a number of students it is always a detriment to their medical studies.

#### STUDENT HEALTH SERVICE

On entering the Medical College students adopt a different manner of living than that to which they have been accustomed during their college years. Their mental efforts are more strenuous, while their physical exercise is usually materially decreased. It is therefore important that every student should be in good physical condition when undertaking the study of Medicine, and that an effort be made to maintain a good state of health during the study of Medicine.

All members of the first year class and all students transferring from other colleges are required to undergo a thorough physical examination as soon as possible after entering the College. All students are re-examined yearly. Records of these examinations are kept, and students are advised concerning their physical condition and general health.

Two members of the medical staff are appointed physicians to the students, one of whom is a woman. They have regular hours at the Medical College and should be consulted by any student who feels in any way indisposed. The students pay no fees for this

service.

#### SCHOLARSHIP AND LOAN FUNDS

- I. THE JOHN METCALFE POLK SCHOLARSHIP, a gift under the will of William Mecklenberg Polk, the first Dean of the Medical College is awarded annually by the Faculty. The scholarship amounts to \$250.00 a year.
- 2. Cornell University Medical College Scholarships. By vote of the Council scholarships amounting to \$500.00 a year are awarded from time to time.
- 3. The 1923 LOAN FUND. This fund amounts to \$350.00 a year and is available as a loan to students needing financial assistance, preferably to a third year student.
- 4. CLINICAL RESEARCH SOCIETY LOAN FUND. A sum of \$200.00 has been provided by the Clinical Research Society and is available to fourth year students needing financial assistance, under conditions prescribed by the Society.
- 5. Get-Together Loan Fund. This fund has been collected by the students of the Medical College, and is available for a student who is in need of immediate financial assistance.

Applications for loans should be made to the Secretary of the Faculty.



VI. For efficiency in Research. In memory of William Mecklenburg Polk, M.D., LL,D., first Dean of the Medical College, the following prizes are offered to regularly matriculated students of the Cornell University Medical College:

I.	First Prize	 					 	. ,	 \$200
2.	Second Prize.					 			 50

The awards are made annually at the opening exercises of the Medical College in September for the best written reports of research work done by students, or for valuable reviews and logical presentations on medical subjects not to be found fully considered in a single text or reference book. If the papers submitted are not considered worthy of special commendation the prizes will be withheld.

Papers are submitted in quadruplicate in a sealed envelope marked, "Dean William Mecklenburg Polk Memorial Prize Committee," and must be in the Secretary's Office not later than the first day of

September.

The Committee of Awards consists of two members of the Faculty from laboratory departments, and two from clinical departments.

## HOSPITAL APPOINTMENTS

Members of the graduating class of Cornell University Medical College are nominated for appointment to the staff of internes in the Cornell division of Bellevue and the New York Hospitals in accordance with the following general plan:

- 1. The list of available positions having been posted, members of the graduating class make application for such services as they desire, naming not less than two choices, and agreeing to accept the position if offered.
- 2. A committee of the faculty determine the appointments from the list of candidates, basing the determination upon:
  - a. The student's standing during his first three years in Medical College.

b. The quality of his work in the hospital ward.

c. Personality and general fitness for the position desired.

The nominations thus made are subject to confirmation by the faculty of the Medical College and by the hospital. The faculty expressly reserve the right to alter the method of appointment in any or all particulars, at any time, and without notice.

The students and graduates of the Cornell University Medical College are also expected to compete for positions on the resident staff

of other hospitals of the city.





The requirements, the times of examination, and the period of service differ. The details can be learned by application, written or in person, to the superintendents or to the secretaries of the medical boards of the various hospitals.

A record of the hospital appointments received by the graduating class is shown in the list of Graduates preceding the Student Reg-

ister at the end of the Announcement.

ALPHA OMEGA ALPHA. A chapter of this Medical Honor Society was established by charter in the Medical College in 1910. Not more than one-sixth of the students of the fourth year class are eligible for membership. This society has for its purpose the development of high standards of personal conduct and scholarship, and the encouragement of the spirit of medical research. Students are elected into membership on the basis of their scholarship, character, and originality.

The Vesalian Society is a students' organization which arose from a series of anatomical Journal Clubs started about 1910. The anatomical Journal Club has been confined to the first year class and the Vesalian Society became the means of continuing the consideration of scientific literature by a group of interested students in the upper classes. The Society now maintains a Journal Club in each College class, with admittance to membership on the basis of effective scholarship. In addition to the class meetings there are meetings open to the public which are addressed by undergraduates and by invited guests. The purpose of the Society is to stimulate an active interest in the broader aspects of the medical sciences, to promote a fraternal spirit in and between the College classes, and to promote co-operation between undergraduates and alumni.

## THE PLAN OF INSTRUCTION

The function of a Medical Department in a University is primarily to produce practitioners of medicine of the highest possible efficiency. The school must include among its students not only those whose life is to be spent in the treatment of disease, but those who intend to become teachers of medicine or of the branches of natural science upon which medicine depends, as well as those who devote their. energies to advancing these sciences by research and to work connected with the public service. The Medical Department of the University has therefore developed into a school whose students are to be prepared to become practitioners of medicine and surgery, teachers of these subjects and their subsidiary branches, and investigators of biological problems which pertain to human disease and preventive medicine. To reach this ideal, and to relieve the Medical Department from instruction in subjects which belong to natural science in general and not strictly to the medical curriculum, it is necessary that the students should have received the best possible preliminary education which must include the mental training implied by the baccalaureate degree.

In arranging the course of study the subjects pertaining to pure, rather than applied, science are grouped in the first year of the medical course, those of applied science in the early part of the second year, and the so-called clinical subjects in the second, third and fourth

years.

The fourth year of the medical curriculum is devoted largely to clinical instruction in the various aspects of medicine and surgery, with bedside instruction and ample opportunity for the careful study of cases by continuous service in the hospital wards. Some opportunity for elective courses is allowed, but all students must take at least the minimum amount of the subjects which form the basis of the general practitioner's usefulness, and all are thus necessarily prepared for the usual competition for appointments as hospital internes, positions in the public service of the State and Nation, and examinations for licensures by the States.

Any student of exceptional fitness, however, after having completed the first three years' work and who then desires to devote the major part of his time to one or more of the laboratory departments may do so during the fourth year. Such an arrangement can be made only with the approval of the Director and the heads of the departments concerned. The departments in which the student is engaged shall then determine whether his work has given such satisfaction as would

warrant the degree at the end of the year.

The extensive opportunity for continuous ward work afforded by the curriculum of the third and fourth years in no wise replaces the valuable work afforded by hospital interneship, but is in a way preparatory thereto. Every graduate of this medical school is expected to pursue the usual interne service in some hospital, our graduates having little or no difficulty in obtaining the best positions under competitive examinations in addition to those appointments directly and indirectly controlled by this College. Without prolonged hospital training no physician should attempt to practice or to teach; and no specialist can be worthy of the name who lacks the broad foundation insured by such a service.

The details of the course are to be found in the Departmental An-

nouncements.

GRAND TOTAL-4,529 Hours.

# SUMMARY OF REQUIRED HOURS

	~			
COURSE	HOURS			
	First Year	Second Year	Third Year	Fourth Year
ANATOMY				
Histology and Embryology	258			
Gross Anatomy	350			
Neuro-Anatomy	88			
Topographical Anatomy		36		
PHYSIOLOGY	165	153		
CHEMISTRY	249			
PHARMACOLOGY		66	44	
PATHOLOGY		195	48	
Pathological Anatomy		66	10	
BACTERIOLOGY		210		
MEDICINE		159	100	312
Therapeutics			II	
Clinical Pathology			96	
SURGERY		93	157	312
OBSTETRICS			86	98
GYNECOLOGY			20	102
PEDIATRICS			92	108
NEUROLOGY			21	36
PSYCHIATRY			75	
UROLOGY		21	20	
DERMATOLOGY		21	32	
LARYNGOLOGY AND RHI-			3-	
NOLOGY		10	32	
OPHTHALMOLOGY		31	12	
OTOLOGY			15	
ORTHOPEDIC SURGERY			22	36
ROENTGENOLOGY		10	31	
HYGIENE			150	
MILITARY SCIENCE	30		- 5 -	
ELECTIVES				240
				-7-
TOTALS	1,140	1,071	1,074	1,244
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# THE DEPARTMENT OF ANATOMY

CHARLES R. STOCKARD, M.S., Ph.D., M.D., Sc.D., Professor of

Anatomy.

CHARLES V. MORRILL, A.M., Ph.D., Associate Professor of Anatomy. George Papanicolaou, Ph.D., M.D., Assistant Professor of Anatomy.

Jose F. Nonidez, Sc.D., Assistant Professor of Anatomy.

PHILIP B. ARMSTRONG, B.S., M.D., Assistant Professor of Anatomy.

Louis Hausman, A.B., M.D., Associate in Neuro-Anatomy.

WILLIAM L. SNEED, M.D., Instructor in Applied Anatomy.

JOSEPH L. SCHWIND, A.M., Ph.D., Instructor in Anatomy.

EMILIA M. VICARI, A.M., Associate in Anatomy.

SIMONE B. SCHWIND, Ph.D., Assistant in Anatomy.

VIRGIL A. MASON, A.B., A.M., Assistant in Anatomy.

## I. MORPHOLOGY

STRUCTURE OF MAN.—This course considers the structure of the various organs and systems of the human body in the light of their variations and evolutions. The relationship of the parts of the organs and systems are also explained by numerous facts gathered from experimental morphological studies on lower vertebrates.

The chief aim is to instill into the student the idea that animal structures are constantly changing and varying, yet are so definite as

to lend themselves to logical analysis.

Laboratory, 40 hours (elective), and demonstration conference, 22

hours (optional).

Reference Books.—Wiedersheim's Comparative Anatomy and Bau des Menschen, Wilder's History of Man, together with special works and monographs on the subject.

Professor STOCKARD.

## II. EMBRYOLOGY AND HISTOLOGY

The work in *embryology* presupposes a general knowledge of the subject, particularly that of the early development of the chick. It embraces a thorough study of the development of the mammalian embryo in the light of our knowledge of the evolution of the human body. Malformations resulting from developmental disturbances are broadly considered. The course is closely correlated with that in gross anatomy.

The work in *histology* includes the histogenesis and microscopic structure of all organs of the human body with the exception of the central nervous system (see *neuro-anatomy*). Emphasis is laid on the

relation of structure to function.

The tissues are studied principally by means of stained sections and tests are given for a rapid identification of their diagnostic features.

Demonstrations of living material are made and opportunities are offered for acquiring the essentials of histological technique.

A part of the course is devoted to seminars on current literature. Laboratory course and lectures—258 hours, October to March.

Required of all first-year students.

Assistant Professor Nonidez, Dr. Schwind and assistants.

Text-books.—Patten, Embryology of the Pig; Lewis, Text-book of Histology; Keith, Human Embryology and Morphology; Schäfer, Microscopic Anatomy; scientific journals.

## III. NEURO-ANATOMY

A laboratory course on the gross and microscopic anatomy of the human central nervous system. Especial emphasis is laid on the more important pathways and their functions.

Laboratory and demonstrations, 88 hours. Required of all first-year

students during the third term.

Associate Professor Nonidez and Dr. Hausman.

Text-books.—Ranson, Anatomy of the Nervous System; Villiger's Brain and Spinal Cord; Herrick's Introduction to Neurology and any of the text-books of anatomy used in Course IV.

## IV. GROSS ANATOMY OF THE HUMAN BODY

This is taught by means of laboratory exercises and dissections held in the dissecting room at stated hours. The following are the courses required:

Course I. The Upper Extremity.

Course II. THE HEAD AND NECK.

Course III. THE LOWER EXTREMITY.

Course IV. The Thorax.

Course V. The Abdomen and Pelvis.

The required work in each of the above courses includes: (a) Dissection of the part. (b) Demonstrations, study, and discussion upon dissected and prepared specimens, and from standard text-books.

Total laboratory hours, 350 (minimum). First and second terms of

the first year.

Course VI. A Demonstration Course. Optional for the first-year students. Demonstrations upon the cadaver, models and dissected preparations amplifying the courses in dissection during the first and

second terms of the first year.

COURSE VII. STUDY ROOM COURSE IN LIVE ANATOMY. Since the ultimate aim of dissection is to acquaint the student not merely with the arrangement of structures in the cadaver, but with the facts of the living body, this course follows as a natural sequence to the work of the dissecting room. Optional to first-year students.

Course VIII. Dissection Review. The work covers a repetition of

Courses I-V, giving an opportunity for advanced dissection. Optional to students of the second, third or fourth year. Afternoons.

COURSE IX. TOPOGRAPHICAL ANATOMY.—A study of the relations and topography of the parts of the body by means of frozen sections. Cleared preparations and living models are also used. Members of the class must submit a number of drawings made from the sections.

Laboratory, 36 hours. Required during the first term of second year.

Professors Stockard, Morrill, Armstrong and assistants.

Text-books.—Cunningham's Manual of Practical Anatomy; Cunningham's Text-book of Anatomy; Spalteholz's Atlas of Human Anatomy; Morris' Human Anatomy; Gray's Anatomy; Piersol's Human Anatomy.

## V. APPLIED ANATOMY

This course is given during the second term of the third year. It is conducted as a laboratory exercise and aims to demonstrate the important facts of regional and topographical anatomy as applied to the practice of medicine and surgery.

Laboratory, 60 hours (optional).

Dr. Sneed and assistants.

Text-books.-Woolsey's, Applied Surgical Anatomy; Davis' Applied Anatomy.

# VI. ELECTIVE COURSES PREPARATORY TO THE SPECIALTIES

Optional for students of the third and fourth years. These courses offer a thorough review of the embryology, histology and gross anatomy of the following organs and systems:

- (a) The eye.
- (b) The ear.
- (c) The face and neck, including especially the nose and accessory sinuses, the mouth and salivary glands, pharynx and larynx, thyroid and parathyroid glands.
- (d) The genito-urinary system, male and female.(e) The brain and spinal cord.
- (f) The thorax and abdomen.
- (g) The extremities, especially the joints and their mechanics.

Laboratory, 40 hours. Professor Stockard and instructors.

# VII. ELECTIVE COURSES FOR ADVANCED STUDENTS

Course I. General Histology.—This course will comprise a study of the various types of tissues which form the several organs of the vertebrate body. The structures will be studied not only from the mere morphological standpoint, but the various biological problems involved will be taken into consideration. The close relationship between structure and function will be elucidated.





Twenty lectures, March to June.

Registration not later than January. Assistant Professor Nonidez and Dr. Schwind.

Course II. The Anatomy of the Infant.—A course of lectures amplified by demonstrations and the study of preparations.

Twenty demonstrations arranged for in advance. Professor Stock-

ard.

COURSE III. DEVELOPMENT ARRESTS AND STRUCTURAL DEFI-CIENCIES.—A discussion of the imperfections in development which may occur during various periods from the maturation of the germ cells, fertilization of the egg on through embryonic and fetal development.

Fifteen lectures. Professor Stockard.

COURSE IV. EXPERIMENTAL EMBRYOLOGY.—These lectures begin with the history of the subject and the various aspects of the problems concerned. The experimental analysis of embryological processes is then considered from the several points of view.

Twenty lectures with conferences considering the recent literature

of the subject. March to June. Professor Stockard.

COURSE V. REGIONAL ANATOMY.—This course will comprise a thorough review by means of dissections, demonstrations and reading of the gross anatomy, histology and development of selected regions of the body and of organs and organ systems.

Laboratory and demonstration, 3 half days a week for one month,

April or May.

Associate Professor Morrill and assistants.

Course VI. Applied Anatomy.—With special emphasis on fractures, dislocations, and injuries to the spine and extremities. The course will include eight conferences on Tuesdays and Thursdays from three until five P. M. beginning the first Tuesday in April.

Dr. Sneed.

COURSE VII. FOURTH-YEAR ELECTIVES.—The Department of Anatomy will arrange a schedule of work to fit individual cases for a limited number of fourth-year students desiring to devote the major part or all of their elective time. Such work will be designed, in cases where sufficient time is available, to equip the student to become a laboratory assistant.

## VIII. ANATOMICAL RESEARCH

To students desiring to pursue research in anatomical subjects the equipment of the entire department is available. Members of the staff will gladly assign subjects and direct the progress of advanced work of this type. The work may be elected by students who enter with advanced credits, or by any student who has completed the

preliminary courses in descriptive anatomy, histology and embryology. The course is also open to graduates in medicine or biology.

## SUMMARY

	First Year	Second Year
Morphology*		
Embryology and Histology	258 hours	
Gross Anatomy	350 hours	
Topographical Anatomy		36 hours
Neuro-Anatomy	88 hours	
Applied Anatomy*		

Optional.

### PHYSIOLOGY

GRAHAM LUSK, Ph.D., Professor of Physiology.

DAYTON J. EDWARDS, Ph.D., Associate Professor of Physiology. McKeen Cattell, M.D., Assistant Professor of Physiology.

WILLIAM H. CHAMBERS, M.S., Ph.D., Assistant Professor of Physicians

MARGARET DANN, M.S., Assistant in Physiology.

KEEVE BRODMAN, B.S., Student Assistant in Physiology. ALBERT C. SANTY, B.S., Student Assistant in Physiology.

First Year.—Lectures, laboratory, recitations and a weekly seminar. Physiology of the muscle and nerve, the central nervous system, the special senses, digestion and internal secretions.

Second Year.—Lectures, laboratory, recitations and seminar. Physiology of the blood, circulation, respiration and metabolism.

## **SUMMARY**

		Second Year
Lectures		
Recitations	22 hours	18 hours
Seminar		9 hours
Laboratory	99 hours	81 hours

Text-books.—Starling's, Howell's or Macleod's Physiology; Lusk, Science of Nutrition; Wiggers, Circulation in Health and Disease; Collateral Reading, Scientific Journals.

### CHEMISTRY

STANLEY R. BENEDICT, Ph.D., Professor of Chemistry. WILLIAM H. SUMMERSON, A.B., Instructor in Chemistry. EMIL OSTERBERG, Instructor in Chemistry. JEANETTE ALLEN BEHRE, Ph.D., Instructor in Chemistry. ELEANOR B. NEWTON, A.M., Assistant in Chemistry. GERTRUDE GOTTSCHALL, A.B., Assistant in Chemistry. NATHAN F. BLAU, Ph.D., Research Associate in Chemistry.





The instruction in chemistry is concentrated in the first year, and is arranged upon the assumption that the student is already thoroughly grounded in the principles of chemistry and in physics. The object aimed at is to impart that fundamental knowledge of organic and physiological chemistry which is necessary to the comprehension of the bearings of chemistry upon physiology, pharmacology and medicine.

LECTURES.—There are three conferences a week during the first term upon physical chemistry. The elements of the subject are presented with special emphasis upon the properties and reactions of colloids, and the theory of indicators. Roentgen and radium rays are also discussed.

During the second term two lectures a week are devoted to organic and physiological chemistry. The lectures discuss groups of compounds of especial biological importance, emphasizing especially the carbohydrates, purines, amino acids and the fats.

In the third term two lectures weekly are devoted to Physiological

Chemistry.

RECITATIONS AND CONFERENCES.—There is one recitation weekly during the second and third terms. These recitations are largely in the nature of conferences.

LABORATORY WORK.—During the first term there is one session weekly of two and one-half hours in physical chemistry. The experiments are designed to familiarize the student with the fundamental properties of electrolytes and colloids, and to study the phenomena of osmosis and dialysis. Methods of hydrogen ion determination are also studied.

In the second term there are two sessions weekly of two and one-half hours in organic and physiological chemistry. This work is directed mainly to the preparation and examination of organic compounds of biological importance, and furnishes practice on those

points in which laboratory manipulations are desirable.

During the third term there are two three-hour laboratory sessions in physiological chemistry. This course includes the study of the reactions of the carbohydrates, fats and proteins; of the composition of the salivary, gastric, pancreatic and intestinal secretions and the bile, and their actions in digestion; of the fæces, urine, blood and milk; and of the examination of pathological fluids, concretions, etc. The arrangement of this course is in coaptation with those in physiology and in clinical pathology.

In the laboratory courses each student is supplied with all apparatus and chemicals required.

CHEMICAL PATHOLOGY.—Elective in the fourth year. A practical course in the chemical analysis of the blood. The laboratory work is

supplemented by informal lectures and discussions. Hours to be

arranged.

Research.—The laboratory is open during "optional hours" to students of any year who desire to prosecute advanced work or research, subject to the regulations of the office.

### **SUMMARY**

	First Year
Recitations	33 hours
Laboratory	150 hours
Lectures	66 hours

Text-books.—Hawk, Practical Physiological Chemistry, eighth edition; Sumner, Textbook of Biological Chemistry. For Collateral Reading:—Mathews, Physiological Chemistry; Morse, Applied Biochemistry; Cameron, Biological Chemistry; Wells, Chemical Pathology; McCollum, Organic Chemistry, for students of Medicine and Biology.

## PHARMACOLOGY

ROBERT ANTHONY HATCHER, M.D., Professor of Pharmacology. HARRY GOLD, M.D., Assistant Professor of Pharmacology. JEANETTE TRAVELL, M.D., Instructor in Pharmacology.

Work in this department is offered during the second and third years.

### PHARMACOLOGY

I. LABORATORY.—Sixty-six hours are devoted to the study of the

actions of drugs in the third trimester of the second year.

The experiments are designed to illustrate a wide range of pharmacologic actions, the more important drugs being considered with reference to their actions on different structures. Professor Hatcher and Dr. Gold.

II. Lectures.—Thirty-four hours are devoted to lectures, conferences and written reviews on Systematic Pharmacology in the first trimester of the third year. Professor Hatcher and Dr. Gold.

## MATERIA MEDICA AND PHARMACY

III. ELEMENTARY PHARMACY AND TOXICOLOGY.—Ten hours are devoted to the consideration of crude drugs, and making pharmacopæial preparations of the different pharmaceutical classes (such as extracts, pills, etc.) by the students. Each laboratory exercise is preceded by an informal discussion of the work to be done and its relation to therapeutics. Dr. Travell.

IV. PRESCRIPTION WRITING. ELECTIVE.—A course of about eleven

hours. Dr. Gold.

V. RESEARCH. ELECTIVE.—Students are encouraged to conduct original research under the supervision of the members of the staff. Such work affords a valuable insight into pharmacologic methods, and assists in the formation of a correct estimate of the original work of others.

### **SUMMARY**

	Second Year	Third Tear
Lectures and Conferences		
Laboratory	66 hours	10 hours

Text-books.—Sollman, A Text-book of Pharmacology; A Laboratory Guide in Pharmacology.

## DEPARTMENT OF PATHOLOGY

# GENERAL PATHOLOGY, PATHOLOGICAL ANATOMY, EXPERIMENTAL PATHOLOGY

James Ewing, M.D., Professor of Pathology.
Otto H. Schultze, M.D., Professor of Medical Jurisprudence.
Elise S. L'Esperance, M.D., Assistant Professor of Pathology.
Douglas Symmers, M.D., Assistant Professor of Pathological Anatomy.

James Denton, M.D., Assistant Professor of Pathology. Lawrence W. Smith, M.D., Assistant Professor of Pathology.

Fred W. Stewart, M.D., Associate in Pathology.

CHARLES S. B. CASSASSA, M.D., Instructor in Pathological Anatomy.

Lewis D. Stevenson, M.D., Instructor in Neuro-Pathology.

J. FRANK FRASER, M.D., Instructor in Dermopathology.

CHARLES T. OLCOTT, M.D., Instructor in Pathology.

GILBERT DALLDORF, M.D., Instructor in Pathological Anatomy.

HENRY W. FERRIS, M.D., Instructor in Pathological Anatomy.

## GENERAL PATHOLOGY

FACILITIES.—The department of pathology occupies the main part of the fourth floor of the college building, in which are a class room and working museum, demonstration room for pathological anatomy with refrigerating plant, a preparation room for pathological histology, four private laboratory rooms for officers of the department, an animal hospital, and the library.

Pathological material is drawn from New York Hospital, Bellevue Hospital and the City Morgue, Memorial Hospital for Cancer and

Allied Diseases, and other Hospitals.

The museum contains a selected collection of 3,000 specimens illustrating most of the common and many rare pathological lesions. It is especially rich in lesions of bones and in tumors.

The histological cabinets contain about 20,000 slides arranged

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anatomically and cross-indexed for special diseases. There are also 300 sets of demonstration slides for undergraduate teaching purposes.

A volume is issued jointly by the Departments of Pathology, Bacteriology, and Hygiene, in which are collected the main studies coming from these laboratories. The Department of Pathology with the collaboration of heads of other departments conducts the work in Cancer Research of the Memorial Hospital, and at appropriate times issues reports of these studies.

Instruction.—The course of instruction in pathology begins in the first term of the second year, with lectures and gross and microscopic demonstrations, illustrating degeneration, inflammation, repair of tissues, and the infectious granulomas. At the same time the student observes the external phenomena of disease in demonstrations conducted by the Departments of Medicine and Surgery, reads about them in text-books, and prepares recitations on these topics. Coincidently, biweekly demonstrations of gross pathological material collected from autopsies are conducted. The introduction of each topic is made by individual demonstration of museum specimens followed by the study of microscopic sections. Further coordination of work is accomplished by having the course in bacteriology proceed at the same time. The second term is devoted to the Special Pathology of the organs and constitutional diseases. The third term is occupied with the subject of tumors. In the first term of the third year neuropathology, gynecological pathology and osteopathology are considered. Surgical pathology is taught in New York and Bellevue Hospitals in the third year in connection with ward classes.

Pathological Anatomy is continued through three terms of the course in general pathology, and in the third and fourth years the student witnesses or performs autopsies. Various elective courses are

offered in the latter portion of the fourth year.

## SYNOPSIS OF COURSES

General Pathology.—Lectures, gross and microscopical demonstrations in (a) Degeneration, Inflammation, Regeneration, Granulomas. Required in the first term of second year. (b) Special Pathology. Required in second term of second year. (c) Tumors. Required in third term of second year. (d) Osteopathology, Neuropathology, Gynecological pathology. Required in the first term of third year. 243 hours. Professors Ewing, L'Esperance, Smith and Denton and Drs. Olcott, Stevenson and Fraser.

Pathological. Anatomy.—Demonstrations of gross lesions in material collected from autopsies, gross pathological diagnosis, pathogenesis of symptoms and lesions. 66 hours. Required in second year. Professor Schultze, Drs. Cassassa and Dalldorf.





AUTOPSY TECHNIQUE.—Section teaching at Morgue. Required in third year. Professor Symmers and staff.

Medico-legal Pathology.—The medico-legal relations of pathology are extensively illustrated in the material collected in the morgue and in the museum, and special attention is devoted to this subject in the third and fourth years. Professor Schultze, Drs. Cassassa and Dalldorf.

RECITATIONS, EXAMINATIONS.—Written recitations are conducted monthly throughout the year. Written and practical examinations are held at the end of the course.

ELECTIVES.—In the latter part of the fourth year the student may return to the laboratory and pursue advanced courses in several fields to be determined on consultation. The following courses are specifically recommended.

1. Pathological technique.

2. Tumor diagnosis and General Oncology.

3. Gynecological Pathology.

4. Dermatopathology.

5. Neuropathology.

6. Surgical Pathology.

 Special pathology and study of groups of cases with the production of a thesis.

Most of these elective courses will require the student's entire time for one to three months but may be continued into the summer.

Special Students and Special Degrees.—Opportunity is afforded to a limited number of students to engage in original research in selected topics under the direction of an instructor. The student must contract to devote his entire time, in the usual sense, to the pursuit of the problem, and the results of the work may be published under the auspices of the department. The work may be pursued in the college laboratories, in the Loomis Laboratory, at the New York Hospital, or at the Memorial Hospital in cancer research.

Under the conditions laid down in the Graduate School of Medicine, the student may obtain the degree of M.S., after one year, or Ph.D. after at least three years of study in Pathology. The completion of an original thesis is required for these degrees, and they are granted only

to graduates in Medicine.

#### SUMMARY

	Second Year		Fourth Year
General and Special Pathology	195 hours	48 hours	
Pathological Anatomy	66 hours	10 hours	
Autopsy Technics			Variable

## BACTERIOLOGY

WILLIAM J. ELSER, M.D., Professor of Bacteriology and Immunology.
ARTHUR F. COCA, M.D., Professor of Immunology.
ROBERT A. COOKE, M.D., Assistant Professor of Applied Immunology.
GEORGE W. WHEELER, M.D., Assistant Professor of Bacteriology.
ELLA F. GROVE, Instructor in Immunology.
RUTH A. THOMAS, C.P.H., Instructor in Bacteriology.

GUSTAV I. STEFFEN, Ph.D., Instructor in Bacteriology.
WILL C. SPAIN, M.D., Instructor in Applied Immunology.
EDGAR L. MILFORD, A.B., Assistant in Immunology.
ELIZABETH WATSON, A.M., Assistant in Bacteriology.

## I. BACTERIOLOGY

The subject is taught in the second year in two parts. Part I includes the preparation of culture media, the principles of sterilization and disinfection, the methods of isolation and differentiation of bacterial species and a study of their bio-chemical behaviour. Part II includes a detailed study of the pathogenic bacteria; special attention being paid to their relation to diseases of man. This work is supplemented by lectures and conferences dealing with the theoretical phases of bacteriology and immunology.

## II. IMMUNOLOGY

A laboratory and didactic course is given to second year students in two sections following the course in bacteriology. This course is designed primarily to familiarize the student with the fundamental immunological and serological principles, as well as the technic involved in the recognized clinical and forensic application of those principles, viz., the Widal, precipitin, Wassermann, von Pirquet, Schick, and Dick tests; the standardization of antitoxins; the grouping of human individuals with respect to isohemagglutinins; and the cutaneous test for atopic hypersensitiveness (asthma and hay fever).

# III. APPLIED IMMUNOLOGY

An elective clinical course in applied immunology is offered to fourth year students. This course consists of the practical study of various forms of hypersensitiveness in man, ample material for which is provided in the special clinic, two evenings (4 hours) for one week at the New York Hospital.

# SUMMARY

		Fourth Year
Bacteriology	. 160 hours	
Immunology	. 50 hours	elective

## PUBLIC HEALTH AND PREVENTIVE MEDICINE

JOHN C. TORREY, Ph.D., Professor of Public Health and Preventive Medicine.

Walter C. Klotz, M.D., Assistant Professor of Public Health and Preventive Medicine.

MORTON C. KAHN, Ph.D., Assistant Professor of Public Health and Preventive Medicine.

RALPH W. NAUSS, M.D., D.P.H., Instructor in Public Health and Preventive Medicine.

Instruction in some of the many branches of hygiene and preventive medicine is given in connection with certain of the courses pursued in the several departments of Bacteriology, Chemistry, Physiology,

Pathology and Medicine.

The more distinctive features of this subject, however, are presented in a course of lectures and demonstrations extending throughout the third year and dealing with the subjects of Sanitation, Epidemiology, Preventive Medicine and Public Health Administration. A certain amount of laboratory work is required of each student in the first term. In addition time has be allotted for field work through which the student may acquire experience in making sanitary surveys and visit localities in the vicinity where the practical application of sanitary devices and hygienic methods may be observed. Each student is required to prepare a short thesis on some aspect of public health work.

It is also the aim of the department to take full advantage of the opportunities offered by the Clinic for instruction in the preventive aspects of medicine. Such close correlation is facilitated through the fact that an Assistant Professor is also director of the Cornell Clinic.

The laboratory is open to properly qualified students of the third or fourth years who may desire to pursue original investigations under the direction of the staff and in accordance with the regulations of the college office.

## SUMMARY

	Ibird Iear
Lectures and Conferences	
Laboratory Work	
Field Work	36 hours*

Text-books.—Park, Public Health and Hygiene; Rosenau, Preventive Medicine and Hygiene.

Collateral Reading.—MacNutt, Manual for Health Officers; Vaughan, Epidemiology and Public Health; Chandler, Animal Parasites and Human Disease.

<sup>\*</sup> Eleven afternoons are assigned for field experience.

## MEDICINE

LEWIS A. CONNER, M.D., Professor of Medicine. G. CANBY ROBINSON, M.D., Professor of Medicine. EUGENE F. DuBois, M.D., Professor of Medicine. WALTER L. NILES, M.D., Professor of Clinical Medicine. Nellis B. Foster, M.D., Associate Professor of Medicine. WILLIAM C. THRO, M.D., Professor of Clinical Pathology. ALEXANDER LAMBERT, M.D., Professor of Clinical Medicine. MALCOLM GOODRIDGE, M.D., Professor of Clinical Medicine. JOHN W. CHURCHMAN, M.D., Professor of Experimental Therapeutics. HENRY B. RICHARDSON, M.D., Assistant Professor of Medicine. RUSSELL L. CECIL, M.D., Assistant Professor of Clinical Medicine. ARTHUR L. HOLLAND, M.D., Assistant Professor of Clinical Medicine. RALPH G. STILLMAN, M.D., Assistant Professor of Clinical Pathology. CARY EGGLESTON, M.D., Assistant Professor of Clinical Medicine. HAROLD E. B. PARDEE, M.D., Assistant Professor of Clinical Medicine. CONNIE M. GUION, M.D., Assistant Professor of Clinical Medicine. HARRY A. BRAY, M.D., Lecturer on Tuberculosis. ALICE R. BERNHEIM, M.D., Assovate in Medicine. JOHN H. RICHARDS, M.D., Instructor in Medicine. DAN H. WITT, M.D., Instructor in Medicine. HORACE S. BALDWIN, M.D., Instructor in Medicine. CHARLES H. NAMMACK, M.D., Instructor in Medicine. ASA L. LINCOLN, M.D., Instructor in Medicine. PAUL REZNIKOFF, M.D., Instructor in Medicine. EDWIN T. HAUSER, M.D., Instructor in Medicine. WALTER S. McClellan, M.D., Instructor in Medicine. NORMAN PLUMMER, M.D., Instructor in Medicine. EVELYN HOLT, M.D., Instructor in Medicine. EPHRAIM SHORR, M.D., Instructor in Medicine. KIRBY MARTIN, M.D., Instructor in Medicine. HENRY J. SPENCER, M.D., Instructor in Medicine. ROBERT O. LOEBEL, M.D., Instructor in Medicine. BENJAMIN H. ARCHER, M.D., Instructor in Clinical Medicine. HAROLD S. BELCHER, M.D., Instructor in Clinical Medicine. LAILA COSTON CONNER, M.D., Instructor in Clinical Medicine. HARRY H. HAMILTON, M.D., Instructor in Clinical Medicine. Louis A. Hauser, M.D., Instructor in Clinical Medicine. EDMUND R. P. JANVRIN, M.D., Instructor in Clinical Medicine. BERTON LATTIN, M.D., Instructor in Clinical Medicine. LEON I. LEVINE, M.D., Instructor in Clinical Medicine.





Anna Platt, M.D., Instructor in Clinical Medicine.
Neil C. Stevens, M.D., Instructor in Clinical Medicine.
Douglass Palmer, M.D., Instructor in Clinical Medicine.
Sydney Weintraub, M.D., Instructor in Clinical Medicine.
Harry Berkoff, M.D., Instructor in Clinical Medicine.
Helen Gavin, M.D., Instructor in Clinical Medicine.
Michael Lake, M.D., Instructor in Clinical Medicine and Clinical Pathology.

WINIFRED KIRK, M.D., Instructor in Clinical Medicine. THEODORE J. CURPHEY, M.D., Instructor in Clinical Medicine. MALCOLM K. SMITH, M.D., Instructor in Clinical Medicine. EDWARD TOLSTOI, M.D., Instructor in Clinical Medicine. HARRIET WHITE, M.D., Instructor in Clinical Medicine. NATHANIEL STANTON, M.D., Instructor in Clinical Medicine. JEANETTE JENNISON, M.D., Instructor in Clinical Medicine. HERMAN PHILIP, M.D., Instructor in Clinical Medicine. JAMES H. WHALEY, JR., M.D., Instructor in Clinical Medicine. STEPHEN WHITE, M.D., Instructor in Clinical Medicine. Morris Dreyfuss, M.D., Instructor in Clinical Pathology. JULIETTE BÉRNAT, M.D., Instructor in Clinical Medicine. FRANK M. FALCONER, M.D., Instructor in Clinical Medicine. EMIL A. FALK, M.D., Instructor in Clinical Medicine. SCOTT JOHNSON, M.D., Instructor in Clinical Medicine. MAURICE KAGAN, M.D., Instructor in Clinical Medicine. CHARLES KAUFMAN, M.D., Instructor in Clinical Medicine. VICTOR W. LOGAN, M.D., Instructor in Clinical Medicine. THERESA SCANLAN, M.D., Instructor in Clinical Medicine. MARIAN TYNDALL, M.D., Instructor in Clinical Medicine. WILLIAM B. VANCE, M.D., Instructor in Clinical Medicine. JOSEPH YASWEN, M.D., Instructor in Clinical Medicine.

The course in Medicine is begun in the first trimester of the second year and is continued through the second, third and fourth years. Instruction is given by means of didactic lectures, laboratory exercises, amphitheatre clinics, conferences, section classes in hospital wards and in the College Clinic and clinical clerkships in the wards of Bellevue and New York Hospitals.

## SECOND YEAR

Introductory Clinics.—The subject of Medicine is introduced in the first trimester by a series of elementary clinics given at the New York Hospital by Professors Conner and Foster. These clinics are designed to acquaint the student with the simpler and more obvious

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aspects of important and common types of diseases and to stimulate in him the habit of observation. In Bellevue Hospital during the same period a course in Pathological Physiology consisting of lectures and illustrative clinics is given by Professors DuBois, Richardson, Cecil, and Dr. McClellan. The exercises are intended to bridge the gap between the course in Physiology and that in Medicine and to emphasize the importance of the changes in function which occur in disease.

In the third trimester clinics are held in the Amphitheatre of Belle-

vue Hospital by Professor DuBois and his associates.

SEMINARS.—A systematic study of the subject of internal medicine by means of conferences, conducted by Professor DuBois and Doctors Witt and Loebel, is begun in the second trimester and is continued throughout the year. The topics considered are co-ordinated, as far as possible, with the clinics given in Bellevue Hospital.

Physical Diagnosis.—During the first trimester the principles of Physical Diagnosis are presented in lectures and demonstrations by Dr. Pardee and the students are instructed in the various methods of physical examination. In the second trimester the student is given opportunity to practise physical diagnosis by the examination of patients in the wards of the New York and Bellevue Hospitals. The Class is divided into small sections and the bedside teaching conducted by Doctors Pardee, Nammack, Baldwin, Hauser, McClellan and Martin under the direction of Professor Foster.

### THIRD YEAR

Lectures.—During the first and second trimesters one lecture a week is given by Professor Conner upon the general symptomatology of disease. Each of the commoner and more important symptoms is considered in detail with special reference to the physiological processes involved.

Physical Diagnosis.—This subject is continued in the third year during the second and third trimesters. The Class is divided into small groups, each of which in turn is assigned to service in the medical department of the College Clinic. Each student under careful supervision of an instructor is expected to take histories and to make and record physical examinations. This course is under the direction of Professor Guion.

CLINICS.—In the first and third trimesters general medical clinics are held once a week in the College Amphitheatre by Professor Conner. At the Clinics are presented such ambulatory types of medical diseases as are usually not seen in the hospital wards.

Seminars.—The systematic study of medicine by means of conferences, begun in the second year, is continued during the three trimesters of the third year. These seminars are conducted by Profes-

Medicine

sor Richardson and Doctors Richards, McClellan and Shorr and the subjects considered are co-ordinated, as far as possible, with the clinics of Professor Conner.

Therapeutics.—Instruction in therapeutics, under the charge of Professor Goodridge and Dr. Lincoln, is given in the form of lectures and conferences, during the third trimester of the third year, and practical demonstrations in the wards of Bellevue Hospital during the period of clinical clerkship in the fourth year. For one-half of this period (two weeks) especial emphasis is laid upon treatment and the student receives practical instruction in the use of the more important drugs and in the various other therapeutic procedures.

CLINICAL PATHOLOGY.—The introductory required course, under the charge of Professor Thro, is given in the first trimester of the third year. It consists of ninety-six hours of lectures and laboratory work. This time is devoted to the teaching and the practical application of methods for the examination of urine, blood and blood serum, sputum, exudates and transudates, spinal fluid, gastric contents, fæces, and for the bacteriological examination of clinical material.

During the remainder of the third year and in the fourth year the students perform laboratory tests on patients assigned them in the clinics and hospitals, where they are supervised by instructors in the

Department of Medicine.

In the latter part of the fourth year students have an opportunity to elect work in Clinical Pathology.

### FOURTH YEAR

CLINICAL CLERKSHIPS.—The time allotted to medicine in the last year is devoted entirely to practical work in the wards of New York and Bellevue Hospitals and to elective subjects. Each student is required to serve for a period of two months as clinical clerk in the medical wards; the time being divided equally between New York and Bellevue Hospitals, During this period his entire day is spent in the wards and clinical laboratories. A certain number of patients are assigned for study to each student. Under careful supervision he takes the histories, makes physical examinations, performs the various necessary laboratory examinations and records the progress of the cases. He is expected to be present at all post-mortem examinations and to attend the clinical pathological conferences. Each afternoon teaching rounds for the entire group on duty are made by some member of the Attending Staff.

At the New York Hospital, in addition to the routine ward teaching by Professors Conner and Foster, a weekly conference by Professor Foster is held with the group upon disorders of metabolism and their treatment, as exemplified by cases in the wards; a course of eight

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periods on the fluoroscopic investigation of the gastro-intestinal tract is given by Doctor Holland; a part of one afternoon of each week is devoted by Doctor Pardee to the study of cardiac arhythmias and the interpretation of electrocardiographic and polygraphic records and by

Professor Samuels to medical ophthalmoscopy.

At Bellevue Hospital, in addition to the routine ward teaching by Professors DuBois, Niles, and Goodridge, a clinical pathological conference and a medical clinic are held once a week. At the latter, cases presented by the student clerks are discussed by the staff and the results of experimental work done by the research members of the staff are demonstrated in connection with the cases studied. During this period also the students spend four afternoons in the wards of the Tuberculosis Division where, through the courtesy of Dr. James Alexander Miller, Visiting Physician in charge, they receive instruction together with students from the College of Physicians and Surgeons.

ELECTIVE STUDIES.—The latter part of the fourth year is available for elective work. For courses offered see page 88.

Graduate Study and Research.—The clinics and laboratories of Bellevue and New York Hospitals are available for special study and research to a limited number of physicians possessing suitable training.

Bellevue Hospital Clinic.—The Russell Sage Institute of Pathology is especially equipped for the investigations of problems of metabolism. The calorimeter is operated in conjunction with a metabolism ward and there is a chemical research laboratory for the study of problems connected with respiration and the gases of the blood.

NEW YORK HOSPITAL CLINIC.—The clinical laboratory and chemical laboratory are closely allied with the wards and offer excellent facilities for the study of the chemical aspects of disease. Special lines of research may also be carried on in the serological and bacteriological laboratories of the Hospital in conjunction with clinical observation in the wards. These laboratories have been used notably in the study of the anaemias, nephritis, and protein sensitization.

### SUMMARY

### MEDICINE

	Second Year		
Lectures	12 hours	33 hours	
Seminar	21 hours	33 hours	
Clinics	82 hours	35 hours	
Clinical Clerkships			312 hours
Sections	44 hours	10 hours	
Clinical Pathology		96 hours	

## SURGERY

CHARLES L. GIBSON, M.D., Professor of Surgery.

JOHN A. HARTWELL, M.D., Associate Professor of Surgery.

HENRY H. M. LYLE, M.D., Assistant Professor of Surgery.

BURTON J. LEE, M.D., Professor of Clinical Surgery.

JAMES MORLEY HITZROT, M.D., Professor of Clinical Surgery.

ALFRED S. TAYLOR, M.D., Professor of Clinical Surgery.

Pol Coryllos, M.D., Professor of Clinical Surgery and Assistant in Surgical Research.

JOSHUA E. SWEET, M.D., Professor of Surgical Research.

CHARLES E. FARR, M.D., Professor of Clinical Surgery. HAROLD E. SANTEE, M.D., Professor of Clinical Surgery.

Joseph P. Hoguet, M.D., Assistant Professor of Clinical Surgery.

JOHN C. A. GERSTER, M.D., Assistant Professor of Clinical Surgery.

GUILFORD S. DUDLEY, M.D., Assistant Professor of Clinical Surgery. ELISE S. L'ESPERANCE, M.D., Assistant Professor of Pathology.

LAWRENCE SMITH, M.D., Assistant Professor of Pathology.

RALPH G. STILLMAN, M.D., Assistant Professor of Clinical Pathology.

Morris K. Smith, M.D., Assistant Professor of Clinical Surgery.

BYRON STOOKEY, M.D., Assistant Professor of Clinical Surgery.

RUSSEL H. PATTERSON, M.D., Assistant Professor of Clinical Surgery.

Armand J. Quick, M.D., Research Associate in Surgery.

LEILA C. KNOX, M.D., Instructor in Surgical Pathology.

ABRAHAM J. BELLER, M.D., Instructor in Operative Surgery.

JOSEPH E. J. KING, M.D., Instructor in Surgery.

W. Morris Weeden, M.D., Instructor in Surgery.

NELSON W. CORNELL, M.D., Instructor in Surgery.

HERBERT BERGAMINI, M.D., Instructor in Clinical Surgery.

WOODHULL C. CONDICT, M.D., Instructor in Operative Surgery.

WILLIAM V. HEALEY, M.D., Instructor in Operative Surgery.

Walter Stenson, M.D., Instructor in Operative Surgery.

EDWARD W. SAUNDERS, M.D., Instructor in Clinical Surgery and Assistant in Surgical Research.

PRESTON A. WADE, M.D., Instructor in Surgery and Assistant in Surgical Research.

HENRY S. F. COOPER, M.D., Instructor in Clinical Surgery and Assistant in Surgical Research.

JACOB BUCKSTEIN, M.D., Instructor in Surgical Roentgenology.

JOHN E. SUTTON, JR., M.D., Instructor in Clinical Surgery and Assistant in Surgical Research.

HENRY W. FERRIS, M.D., Instructor in Pathology.

Eugene Bozsam, M.D., Instructor in Operative Surgery.
Francis A. Sutherland, M.D., Instructor in Clinical Surgery.
John H. Morris, M.D., Assistant in Surgical Research.
Florence West, A.B., Assistant in Surgeral Research.
Wade Duley, M.D., Assistant in Surgery.
D. Rees Jensen, M.D., Assistant in Surgery.
John Staige Davis, M.D., Assistant in Surgical Research.
George L. Birnbaum, M.D., Assistant in Surgical Research.
Robert K. Felter, M.D., Research Assistant in Surgery.
Penelope Marsh, A.B., Bacteriologist, Department of Surgery.

Second Year. The introductory course in surgery consists of a series of lectures and recitations, clinics and sections in Bellevue and St. Mary's Hospitals.

THIRD YEAR. Recitations are continued upon regional surgery; the class is instructed in sections at St. Luke's Hospital in history taking and methods of surgical examination and diagnosis, three hours a week for one term, and four and a half hours a week at Memorial Hospital in neoplasms.

In the second and third terms clinics for the whole class are held weekly at New York and St. Luke's Hospitals. Twenty-three lectures

are given by the Professors of Surgery.

A Fracture Course consisting of eleven lectures and demonstrations is given under the direction of Drs. Hitzrot, Smith and Cornell.

A course in *Operative Surgery*, in charge of Dr. John C. A. Gerster consists of recitations and operative work on the cadaver. Each member of the class performs all the principal operations.

FOURTH YEAR. Students spend eight weeks as clinical clerks in the wards of the New York and Bellevue Hospitals. They also receive clinical instruction in small groups in several hospitals and dispensaries on the special branches of gynecology and orthopedics. In the last two months all the work is purely elective and the students may supplement their work in surgery by clinical and laboratory electives.

### HOSPITAL WORK

The Cornell University Medical College through its control of the First Surgical Service of the New York Hospital, the Second Surgical Division of the Bellevue Hospital and the Memorial Hospital and with clinical privileges at St. Luke's and St. Mary's Hospitals, possess every facility necessary for the efficient teaching of practical surgery and surgical pathology.

The Staff of Instruction of the New York Hospital is at present

organized as follows:





# NEW YORK HOSPITAL, CORNELL (FIRST SURGICAL) DIVISION

CHARLES L. GIBSON, M.D., Professor of Surgery, Attending Surgeon. JAMES M. HITZROT, M.D., Professor of Clinical Surgery, Associate Attending Surgeon.

CHARLES E. FARR, M.D., Professor of Clinical Surgery, Associate

Attending Surgeon.

RALPH G. STILLMAN, M.D., Assistant Professor of Clinical Pathology, Assistant Director Department of Pathology.

LAWRENCE SMITH, M.A., Assistant Professor of Pathology, Research Pathologist.

GEORGE W. WHEELER, M.D., Assistant Professor of Bacteriology,

Bacteriologist.

W. Morris Weeden, M.D., Instructor in Surgery, Assistant Attending Surgeon.

NELSON W. CORNELL, M.D., Instructor in Surgery, Assistant Attend-

HENRY W. FERRIS, M.D., Instructor in Pathology, Pathologist.

CHARLES T. OLCOTT, M.D., Instructor in Pathology, Assistant Pathologist.

PRESTON A. WADE, M.D., Instructor in Surgery, Deputy Assistant

Attending Surgeon and Anesthetist.

WADE DULEY, M.D., Assistant in Surgery, Deputy Assistant Attending Surgeon Out Patient Department.

D. REES JENSEN, M.D., Assistant in Surgery, Deputy Assistant

Surgeon Out Patient Department.

The division consists of about 60 surgical beds and a variable proportion of the children's service. The service is acute in character, and is particularly rich in the graver emergency and traumatic material.

Attached to this division is also a large Dispensary (Tuesday, Thursday and Saturday mornings), which furnishes valuable material for instruction and includes departments in orthopedics, gynecology and dental surgery.

The resources of the Pathological Department under Professor Elser afford valuable opportunities for the study of surgical pathology, and an intimate connection between the two departments is maintained.

Instruction consists of bedside instruction, diagnosis clinics, operative and post-operative clinics, practical instruction in sections (with utilization of the Dispensary clinical material) and clinical clerkships.

FOURTH YEAR CLERKSHIPS.—Each section of students, for four weeks, is subdivided into four smaller groups and the course is planned to give a rotating service changing weekly. The work of the students is similar to that of the junior internes; but carried out under careful supervision. In addition, instruction is given by members of the at70 Cornell

tending staff, the staffs of the pathological laboratory and of the

out patient department in special work.

All patients in the hospital service are assigned to the student groups and they become responsible for all the histories, physical examinations, laboratory investigations and observations on treatment and convalescence after operation.

A special course in Surgical Pathology is given on three days a week

by Doctors Dalldorf and Olcott.

Students are urged to write a short paper during the course preferably on some case or subject studied during their clerkship.

# BELLEVUE HOSPITAL, CORNELL (SECOND SURGICAL) DIVISION

HAROLD E. SANTEE, M.D., Professor of Clinical Surgery, Visiting Surgeon and Director of Second Surgical Division.

JOHN A. HARTWELL, M.D., Associate Professor of Surgery, Consulting

Surgeon.

George Woolsey, M.D., Professor of Clinical Surgery Emeritus, Consulting Surgeon.

JOHN ROGERS, M.D., Professor of Clinical Surgery Emeritus, Visiting Surgeon.

GUILFORD S. DUDLEY, Assistant Professor of Clinical Surgery, Visiting Surgeon.

ELISE S. L'ESPERANCE, M.D., Assistant Professor of Pathology, Surgical Pathologist.

Byron S. Stookey, M.D., Assistant Professor of Clinical Surgery, Assistant Visiting Surgeon (Neurology).

RUSSEL H. PATTERSON, M.D., Assistant Professor of Clinical Surgery,

Assistant Visiting Surgeon.

JOSEPH E. J. KING, M.D., Instructor in Surgery, Assistant Visiting Surgeon (Neurology).

HERBERT BERGAMINI, M.D., Instructor in Clinical Surgery, Assistant Visiting Surgeon.

JOHN E. SUTTON, M.D., Instructor in Clinical Surgery, and Assistant Visiting Surgeon.

HENRY S. F. COOPER, M.D., Instructor in Clinical Surgery, Surgeon to Out Patients and Adjunct Assistant Visiting Surgeon.

EDWARD W. SAUNDERS, M.D., Instructor in Clinical Surgery, Surgeon to Out Patients and Adjunct Assistant Visiting Surgeon.

JACOB BUCKSTEIN, M.D., Instructor in Surgical Roentgenology, Assistant Roentgenologist.

MILTON HELPERN, M.D., Instructor in Surgical Pathology, Pathologist.

Francis A. Sutherland, M.D., Instructor in Clinical Surgery, Surgeon to Out Patients and Adjunct Assistant Visiting Surgeon.

ROBERT K. Felter, M.D., Assistant in Clinical Surgery, Surgeon to Out Patients and Adjunct Assistant Visiting Surgeon.

Penelope Marsh, Bacteriologist, Department of Surgery, Surgical Bacteriologist.

The Division consists of 90 surgical beds, in addition to those de-

The Division consists of 90 surgical beds, in addition to those devoted to genito-urinary diseases and gynecology the hospital instruction in which is outlined under their respective departments.

The hospital interne staff perform the routine duties of the wards, and are assisted in history taking, dressing, etc., by the surgical clerks, who spend their entire day in the wards during their period of clerkship, these privileges being extended exclusively to the students of the Cornell University Medical College.

SURGICAL CLERKSHIPS.—Intensive ward teaching is done under this head in the wards of Bellevue Hospital during the fourth year. The students are assigned in sections for four weeks each. They are under the direction of the Surgical Director, aided by the corps of instructors.

Each student devotes his entire day to the work continuously for four weeks. He is assigned to the study of a certain number of patients, and is enabled to follow the complete course of the disease from the admission of the patient to his discharge. In the event of death he is

present at the autopsy should one be performed.

In this way the student has an opportunity to follow to a conclusion a large number of surgical affections, and he is instructed in the proper methods of surgical history taking, surgical physical examination, surgical dressings, and operative surgery as seen at the operating table. He is also instructed in the laboratory study, including bacteriology, of the blood, urine, fæces, exudates, and transudates. This laboratory work is done under the direction of the staff in the laboratories connected with the hospital, and is under the immediate charge of the Surgical Pathologist to the Division. Each student spends 24 hours in the pathological laboratory, where he is instructed in a series of lesions illustrating the cases under his observation.

By this method of instruction, each student comes into intimate contact with surgical patients, and is required to make a complete study of each one from every standpoint. He has constantly at his service two or more of the teaching staff to guide him in his work, and impress on him the proper methods of observation and study.

#### **SUMMARY**

	Second Year	Third Year	Fourth Year
Lectures			
Recitations			
Clinics	57 hours	16 hours	

		Fourth Year
Sections		
Operative Surgery		
Clinical Clerkships	 	312 hours
Elective	 	Variable

Text-books.—Babcock, Text-book of Surgery; Ashurst's Text-book of Surgery; Rose and Carles, Surgery; Choyce, A System of Surgery, 2d Edition; Thompson and Miles, Manual of Surgery, 6th Edition;

Gould, Surgical Diagnosis; Nelson's Loose Leaf Surgery.

Collateral Reading.—Lexer-Bevan, General Surgery; Stimson, Fractures and Dislocations; Binnie, Regional Surgery; Garré and Borchard, Lebrbuch der Chirurgie; Da Costa, Text-book of Surgery; Bickham, Operative Surgery; Lewis, Practice of Surgery; Juilly, Practical Surgery of the Abdomen; Walton, Surgical Diagnosis; Graham, Surgical Diagnosis.

# OBSTETRICS AND GYNECOLOGY

George Gray Ward, M.D., Professor of Obstetrics and Gynecology. LILIAN K. P. FARRAR, M.D., Assistant Professor of Obstetrics and Gynecology.

HERVEY C. WILLIAMSON, M.D., Assistant Professor of Obstetrics and

Gynecology.

JOHN F. McGrath, M.D., Instructor in Obstetrics and Gynecology. Howard S. McCandlish, M.D., Instructor in Obstetrics and Gyne-

cology.

OGDEN F. CONKEY, M.D., Instructor in Obstetrics and Gynecology. WILLIAM P. DRISCOLL, M.D., Instructor in Obstetrics and Gynecology. LYNN L. FULKERSON, M.D., Instructor in Obstetrics and Gynecology. JOSEPH N. NATHANSON, M.D., Instructor in Obstetrics and Gynecology.

CHARLES T. SNYDER, M.D., Instructor in Obstetrics and Gynecology.

GRETA STOHR, M.D., Instructor in Gynecological Pathology.

#### **OBSTETRICS**

Instruction in obstetrics is given during the third and fourth years by recitations, lectures, manikin practice, ward section work, clinics and conferences, laboratory instruction, and attendance upon cases of confinement.

Third Year—First Term.—Recitations in sections are held by the instructors on the physiology of pregnancy, the mechanism of labor and the care of the woman during the lying-in period. Definite assignments of study from a standard text-book, are made.

12 hours.

Lectures are given by Professor Williamson which are illustrated by lantern slides and the exhibition of specimens and methods, and deal

with the problems of menstruation, ovulation, embryology and the physiology of early pregnancy and the puerperium. The principles of the hygiene of pregnancy and the conduct of normal labor are emphasized.

12 hours.

Second and Third Terms.—Recitations in sections dealing with the pathology of obstetrics are held by Drs. McCandlish, Conkey and Driscoll. This course is in the nature of a conference and discussion is encouraged.

21 hours.

Manikin practice is given to sections of the class. There is individual work by the students upon the phantoms under the close supervision and criticism of the instructors, Drs. McCandlish and Snyder.

10 hours.

Third Term.—Professor Williamson gives a series of illustrated lectures on the pathology and complications of pregnancy. 11 hours.

Second and Third Terms—Ward Section Work.—The sections are divided into groups of eight or ten and they spend ten sessions of two hours each in the wards of Bellevue Hospital under the direction of Professor Williamson and the instructors. The sections are opened each day by the demonstration of whatever operative material there is at hand. It is then continued by bedside instruction in the management of the pregnant and parturient woman and the care of the newborn child.

Laboratory instruction is given in the Departments of Anatomy and Pathology upon the histology of the vulva, uterus, ligaments, Fallopian tubes, and ovaries in the pregnant and non-pregnant conditions and upon the histology and pathology of the decidua, chorion, placenta and umbilical cord. Material is demonstrated from cases of puerperal infections and toxemias of pregnancy.

FOURTH YEAR—First and Second Terms—Practical Instruction.—Students attend cases in labor at the Berwind Maternity Clinic and make the requisite post-partum visits. The class in sections of five reside in the clinic building during a period of two weeks. Each student attends from twelve to twenty cases and when possible, follows his case from the prenatal visits to the tenth day of the puerperium. The student is instructed particularly in the prenatal care. The follow-up clinic, at this hospital, carries the mother through a period of six weeks and the child for a period of one year. The student does his work under the control of the staff of instructors. Conferences are held in the Clinic and free discussion of the cases under treatment is encouraged.

Approximately 98 hours.

Third Term.—An elective course in advanced obstetrics is given under the direction of Professor Williamson. The student spends two weeks at Bellevue Hospital and two weeks at the Berwind Maternity Clinic and the periods are eight hours a day at the former institution

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and twleve hours a day at the latter. In order that a certain number of operative cases may be seen the time is divided through the month into day and night services. While on the Berwind Clinic service a student may elect to serve full time rather than a twelve hour day. Operative procedures are observed and the student takes part in the prenatal examination and general ward administration.

#### GYNECOLOGY

Instruction in Gynecology is given during the third and fourth years by (1) Section teaching in the Out-Patient Department, (2) Didactic Lectures, (3) General operative clinics, (4) Section work in operative clinics, (5) Ward demonstrations and conferences, (6) Laboratory courses, and (7) Full time elective courses.

1. Small sections of three or four students are drilled by the instructors in methods of examination and treatment of ambulatory cases in the Cornell Clinic during the third year. In connection with the Out-Patient teaching, instruction is given in gynecological cystoscopy, the technic of endoscopy, cystoscopy, catheterization of the ureters and testing of kidney efficiency as applied to gynecological cases.

2. Professor Ward gives during the second term of the third year a course of didactic lectures and demonstrations on the fundamentals of

Gynecology.

3. A general operative clinic by Professors Ward and Farrar is held at the Woman's Hospital for the fourth year students throughout the first and second terms. Charts, blackboard drawings, clay modeling, etc., are employed before the operation is begun, to teach the principles of operative gynecology. A stereomotograph is used during the operation to throw lantern slides upon the screen to show the operative steps and to refresh the student's memory of the anatomy of the region.

4. Small sections permit students at the operation to examine the patient under anæsthesia and thus enables them to study the detail of the operation, to write up reports, and to check up the diagnosis.

5. Ward demonstrations and conferences are held by the head of the department during the first and second terms of the fourth year at the Woman's Hospital. The students are brought into contact with the patients they have seen at operation and are thus enabled to follow the post-operative course of each case. They take histories of patients awaiting operation and make pelvic examination under guidance.

Methods of diagnosis are demonstrated and the appropriate treatment is outlined. Non-operative treatments are demonstrated during

these conferences.

6. A course in pathological gynecology is given by the department of Pathology during the third year. Specimens from the museum and microscopical sections of diseased tissues are demonstrated.

Third Year Fourth Year

Lectures on gynecological pathology and laboratory demonstrations of secretions, discharges and specimens obtained from patients who come under operation are given to sections of the fourth year class by

Dr. Stohr as a part of the course at the Woman's Hospital.

7. An elective course is given at the Woman's Hospital during the third term of the fourth year. The course provides for four students, working under supervision, as clinical clerks and assistants in the hospital from 9 A.M. to 5 P.M. daily for one month. It includes operating room work, the study of special reserarch problems and preparation of a thesis.

# SUMMARY OBSTETRICS

Lectures	23 hours	
Recitations	33 hours	
Sections	30 hours	
Practical Obstetrics		98 hours*
Gynecology		
01112002001		
G1112002001	Third Year	Fourth Year
Lectures		Fourth Year
_	10 hours	
Lectures	10 hours	

Text-books.—Obstetrics, Williams, DeLee; Gynecology, Polak, Kelly, Crossen, Graves.

# **PEDIATRICS**

OSCAR M. SCHLOSS, M.D., Professor of Pediatrics.

Louis C. Schroeder, M.D., Assistant Professor of Pediatrics.

LYNNE A. HOAG, M.D., Assistant Professor of Pediatrics.

SAMUEL Z. LEVINE, M.D., Assistant Professor of Pediatrics.

ARTHUR F. ANDERSON, M.D., Associate in Pediatrics.

MAY G. WILSON, M.D., Associate in Pediatrics.

PHILIP M. STIMSON, M.D., Associate in Pediatrics.

JESSE F. SAMMIS, M.D., Instructor in Pediatrics.

THOMAS E. WALDIE, M.D., Instructor in Pediatrics.

LUDWIG SCHOENTHAL, Instructor in Pediatrics.

M. BERNARD BRAHDY, M.D., Instructor in Clinical Pediatrics.

ROBERT O. DuBois, M.D., Assistant in Pediatrics.

CARL H. SMITH, M.D., Assistant in Pediatrics.

Tyree C. Wyatt, M.D., Assistant in Pediatrics.

The aim of this department is to teach the fundamental principles of Pediatrics.

The student is given opportunity to become familiar with the dis-

\* Approximately.

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eases peculiar to infants and children, and receives special instruction in infant feeding and hygiene, and the therapeutics of children's diseases.

THIRD YEAR.—There is a clinical lecture once a week during the second and third terms. This comprises a systematic consideration of the subject of Pediatrics, supplemented by the demonstration of illustrative cases. The students are assigned in sections for recitations in which the field of pediatrics is consecutively considered.

Sections of students are assigned to the wards for instruction in physical examination, diagnosis and treatment of sick infants and

children.

A course of instruction in acute contagious diseases is given at the Willard Parker Hospital. The students have opportunity to become familiar with the diagnosis, care and treatment of such diseases.

FOURTH YEAR.—The work during the fourth year is entirely practical. The major part of the instruction is in the Out Patient Department of the New York Nursery and Child's Hospital, but in addition, the students attend ward rounds and have an opportunity to study hospital cases. During the latter part of the year there is an elective course limited to a small number of students.

#### SUMMARY

	Third Year	Fourth Year
Clinics	31 hours	
Recitations	21 hours	
Sections	40 hours	
Clinical Clerkships		48 hours
Elective		60 hours

Text-books.—Holt and Howland, Diseases of Infancy and Childhood; Griffiths, Diseases of Children; Porter and Carter, Management of the Sick Infant.

Collateral Reading.—Still, Common Disorders and Diseases of Childbood; Hess, Principles and Practice of Infant Feeding.

#### **PSYCHIATRY**

WILLIAM L. RUSSELL, M.D., Professor of Psychiatry.
MORTIMER W. RAYNOR, M.D., Professor of Clinical Psychiatry.
GEORGE W. HENRY, M.D., Assistant Professor of Psychiatry.
JOSEPH P. EIDSON, M.D., Assistant Professor of Clinical Psychiatry.
MICHAEL J. LONERGAN, M.D., Instructor in Psychiatry.
CHARLES A. McGAFFIN, M.D., Instructor in Psychiatry.
EUGENE C. CICCARELLI, M.D., Instructor in Psychiatry.
GEORGE S. STEVENSON, M.D., Instructor in Psychiatry.

Instruction in psychiatry is given in the second, third, and fourth years. In the second year, second term, ten lectures in medical psy-





chology and elementary psychopathology serve as an introductory course to the study of clinical psychiatry. In the third year, first term, eleven lectures are given covering more advanced psychopathology; also etiology, symptomatology, and methods of examination. During the second term of the third year, ten lectures and ten one-hour clinical demonstrations are given with special reference to the psychiatric problems that are more frequently met with in general medical practice, including psychoneuroses, psychopathic states, habit disorders, and mental deficiency in adults and children. During the third term, eleven lectures are given on the etiology, symptoms, treatment, and on the social and medico-legal aspects of the psychoses. Supplementing these lectures are eleven two hour clinical demonstrations in the wards of the Manhattan State Hospital. The lectures and clinical instruction of the course are directed especially to the relations of psychiatry to general medical study and practice.

In the fourth year, elective courses are given to selected groups of students. An opportunity is given for the personal examination and study of cases presenting psychiatric problems in the out-patient clinics, in the wards of the general hospital, and in the psychiatric

hospital at Ward's Island.

T D 1 1 1D 11 1	Second Year	Third Year	Fourth Year
Lectures on Psychology and Psychopathology	10 hours		
Lectures on Psychopathology, Etiology and			
Symptomatology		12 hours	
Lectures on Clinical Psychiatry		21 hours	
Clinical Demonstration		32 hours	
Advanced Psychiatry			

# SPECIAL DEPARTMENTS OF MEDICINE AND SURGERY

#### NEUROLOGY

CHARLES L. DANA, M.D., Professor of Clinical Medicine, Department of Neurology.

FOSTER KENNEDY, M.D., Professor of Clinical Medicine, Department

of Neurology.

THOMAS K. DAVIS, M.D., Associate in Clinical Medicine, Department of Neurology. WALTER M. KRAUS, M.D., Associate in Clinical Medicine, Depart-

ment of Neurology.

GEORGE H. HYSLOP, M.D., Instructor in Clinical Medicine, Department of Neurology.

LEWIS D. STEVENSON, M.D., Instructor in Clinical Medicine, De-

partment of Neurology.

S. Bernard Wortis, M.D., Assistant in Clinical Medicine, Department of Neurology.

Instruction in Neurology begins in the second semester of the Third Year with weekly clinical lectures and conferences. During this period optional instruction is also given to small groups in the college clinic under the direction of the Chief of Clinic. In the Fourth Year, the students are given clinical instruction in sections in the Neurological wards of Bellevue Hospital until the 1st of April. In the last two months of the Fourth Year optional courses in Neurology are given.

#### SUMMARY

	Third Year	Fourth Year
Lectures and Clinics	21 hours	
Sections		36 hours

Text-books .- Dana, Diseases of the Nervous System; Cecil, Text-book

of Medicine.

Collateral Reading.—Works on nervous diseases by Sachs, Starr, Church and Peterson, Jelliffe and White, Oppenheim, Bing, and Stewart.

# UROLOGY

EDWARD L. KEYES, M.D., Professor of Clinical Surgery, Department of Urology.

A. RAYMOND STEVENS, M.D., Associate Professor of Clinical Surgery,

Department of Urology.

HOWARD S. JECK, M.D., Assistant Professor of Clinical Surgery, Department of Urology.

BENJAMIN S. BARRINGER, M.D., Instructor in Clinical Surgery, Department of Urology.

LISLE B. KINGERY, M.D., Instructor in Clinical Surgery, Department

of Urology.

THOMAS J. KIRWIN, M.D., Instructor in Clinical Surgery, Department of Urology.

ROBERT F. ZEISS, M.D., Instructor in Clinical Surgery, Department

of Urology.

MIGUEL ALVAREZ, M.D., Instructor in Clinical Surgery, Department of Urology.

WILLIAM R. DELZELL, M.D., Instructor in Clinical Surgery, Depart-

ment of Urology.

The courses in this department are required of students during the second, and third years. They are designed to give instruction in diagnosis and treatment of the surgical diseases of the urinary and male genital organs.

LECTURES.—Second year. A course of eleven lectures is given to the second-year class during the third term of the college session.

Section Teaching.—Second year. The second-year class is divided into sections of small size for instruction in the College Dispensary during the third term.

CLINIC.—Third year. A two-hour clinic is given in Bellevue Hospital during the second term by Professor Keyes. At this clinic typical cases are demonstrated and discussed by the students themselves.

HOSPITAL WORK.—Students who elect the course in the fourth year are assigned to clerkships in the urological wards of Bellevue Hospital or to the Cornell Clinic for advanced study.

#### SUMMARY

	Second Year		
Clinics		20 hours	
Sections	10 hours		
Lectures	11 hours		
Clinical Clerkships			Elective

Text-book.—Keyes.

Collateral Reading.—Cabot, Thompson-Walker, Young.

#### DERMATOLOGY

HANS J. SCHWARTZ, M.D., Professor of Clinical Medicine, Department of Dermatology.

J. FRANK FRASER, M.D., Assistant Professor of Clinical Medicine,

Department of Dermatology.

Andrew J. Gilmour, M.D., Instructor in Clinical Medicine, Department of Dermatology.

RAY H. RULISON, M.D., Instructor in Clinical Medicine, Department

of Dermatology.

ARTHUR F. KRAETZER, M.D., Instructor in Clinical Medicine, Department of Dermatology.

JOHN H. HARRIS, M.D., Instructor in Clinical Medicine, Department

of Dermatology.

Instruction in Dermatology and Syphilology is given by Doctor Schwartz and his assistants. No teaching is didactic; the cutaneous diseases will be demonstrated on the living subject. Abundance of material for such instruction is obtainable, and the student can thoroughly familiarize himself with the more common as well as with the rarer diseases of the skin by actual personal touch and observation. Attention is particularly paid to the diagnosis and the etiology of skin diseases, but their therapeutics also receive due consideration. Instruction is also given in the intravenous and other forms of treatment by arsphenamine and neoarsphenamine.

# **SUMMARY**

	Second Year	Third Year	Fourth Year
Sections	10 hours	10 hours	Elective
Clinic	11 hours	22 hours	Elective

Text-book.—Ormsby, Diseases of the Skin; Stokes, Modern Clinical Syphilology.

# LARYNGOLOGY AND RHINOLOGY

ARTHUR PALMER, M.D., Acting Head and Assistant Professor of Clinical Surgery, Department of Laryngology and Rhinology.

THOMAS A. MULCAHY, M.D., Instructor in Clinical Surgery, Department of Laryngology and Rhinology.

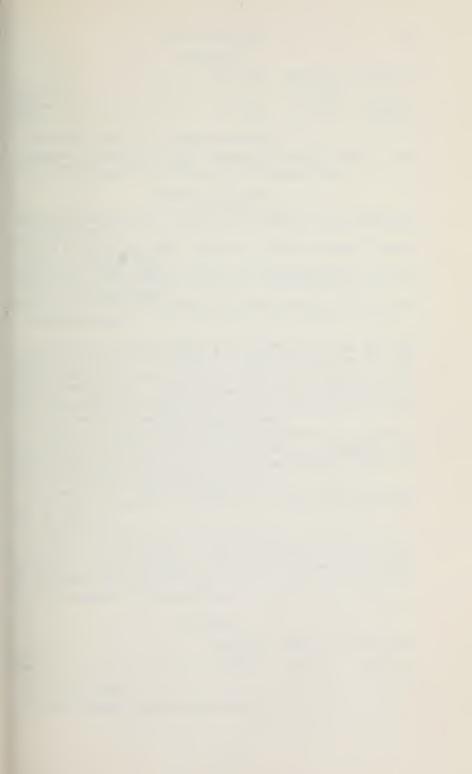
SAMUEL F. KELLEY, M.D., Instructor in Clinical Surgery, Department of Laryngology and Rhinology.

During the second year, the department instructs each student in the ordinary methods of examination of the nose and throat. The anatomy is reviewed and exercises in instrumentation are given.

During the third year, the head of the department gives instruction by clinical exercises and by didactic lectures. In this work, he is assisted by other members of the staff. Each student has practical experience in the examination of patients in the clinic. The lectures given to the entire class are illustrated by models and by stereopticon projectives and by the presentation of cases.

Instruction is also given in the more recent measures employed in

endoscopy and rhino-plasty.





#### SUMMARY

	Second Year	Third Year	Fourth Tear
Lectures			
Sections	10 hours	20 hours	Elective
Clinic			Elective

Text-book .- Turner, Nose, Throat and Ear.

Collateral Reading.—St. Clair Thomson, Diseases of the Nose and Throat; Wright and Smith, Diseases of the Nose and Throat.

### OPHTHALMOLOGY

Bernard Samuels, M.D., Professor of Clinical Surgery, Department of Ophthalmology.

MILTON L. BERLINER, M.D., Instructor in Clinical Surgery, Department of Ophthalmology.

ALGERNON B. REESE, M.D., Instructor in Clinical Surgery, Department of Ophthalmology.

TRUMAN L. BOYES, M.D., Instructor in Clinical Surgery, Department of Ophthalmology.

Instruction in Ophthalmology is given during the second, third and fourth years. The class is divided into small sections for work in the College Clinic. Each student receives individual instruction in the use of the ophthalmoscope. External diseases of the eye and anomalies of the ocular muscles are covered in a practical way. Some time is devoted to errors of refraction and the fitting of glasses.

During the first part of the year the professor of the department gives clinical lectures to the entire class, the patients coming from the College Clinic and the New York Eye and Ear Infirmary. These lectures are illustrated with stereopticon pictures.

The fourth year class, in connection with the clinical clerkship, receives bedside instruction in small sections one hour a week at the

New York Hospital.

In addition students may take Ophthalmology as an elective course, in this year. An opportunity to witness operations, on the living, by the professor and the instructors, is provided at the New York Eye and Ear Infirmary. The histopathology of the eye is taught by microscopical sections prepared for the purpose.

#### SUMMARY

	Second Year	Third Year	Fourth Year
Sections	20 hours		
Clinic	11 hours	12 hours	Elective

Text-book.—Fuchs.

Collateral Reading .- De Schweinitz, May.

# OTOLOGY

GEORGE B. McAuliffe, M.D., Acting Head and Assistant Professor of Clinical Surgery, Department of Otology.

GERVAIS W. McAULIFFE, M.D., Instructor in Clinical Surgery, Department of Otology.

EMMETT C. FITCH, M.D., Instructor in Clinical Surgery, Department of Otology.

JACOB APPLEBAUM, M.D., Instructor in Clinical Surgery, Department of Otology.

For clinical instruction in Otology the third-year class is divided into sections. Each student receives practical instruction in the College Dispensary from Assistant Professor McAuliffe and his assistants in the examination of patients, the use of the otoscope, and the various methods of testing the hearing. The student is permitted to examine patients and after a probationary period, to prescribe for them and thus gradually assume the duties of a clinical assistant. The students also have an opportunity of witnessing the more important operations in aural surgery, including intracranial complications, at the New York Eye and Ear Infirmary.

#### SUMMARY

	Third	d Year
Lectures	10	hours
Sections	5	hours

Text-books.—McAuliffe, Essentials of Otology.

Collateral Reading.—Politzer, Diseases of the Ear; Whiting, The Modern Mastoid Operation.

# ORTHOPEDIC SURGERY

CHARLTON WALLACE, M.D., Professor of Clinical Surgery, Department of Orthopedic Surgery.

ARTHUR H. CILLEY, M.D., Assistant Professor of Clinical Surgery,

Department of Orthopedic Surgery.

IRVIN BALENZWEIG, M.D., Instructor in Clinical Surgery, Department of Orthopedic Surgery.

KRISTIAN G. HANSSON, M.D., Instructor in Clinical Surgery, Department of Orthopedic Surgery

ment of Orthopedic Surgery.

JOHN S. WARE, M.D., Instructor in Clinical Surgery, Department of Orthopedic Surgery.

Instruction in this department is carried on in the third and fourth years:

I. In the first term of the third year:

(a) Didactic and clinical lectures are given for one hour a week to

the entire class in the college lecture room. Professors Wallace and Cilley.

(b) The students work in sections in the College Clinic for ten hours in the examination and treatment of patients. Prof. Cilley.

II. In the fourth year:

(a) Each section of the class receives bedside instruction in congenital and acquired deformities in the wards of the Hospital for the Ruptured and Crippled, one morning each week for four weeks. The same section has one afternoon each week, from 3 to 5, in the Out-Patient Department at the Hospital for Ruptured and Crippled.

(b) One morning a week for four weeks each section receives instruction in physiotherapy in reference to the treatment of industrial

surgical conditions at the Hospital for Ruptured and Crippled.

(c) Students are taught methods of examination and are required to examine the patient, giving a concise résumé of the history, diagnosis and treatment to be employed in each case. Informal recitations and discussions are held for one hour following the case work.

#### **SUMMARY**

	Third Year	Fourth Year
Lectures	12 hours	
Sections	10 hours	
Ward Work		36 hours
Text-booksWhitman and Soutter's Op	erative Ortho	pedics.

## ROENTGENOLOGY

HARRY M. IMBODEN, M.D., Professor of Roentgenology.
JOHN R. CARTY, M.D., Assistant Professor of Roentgenology.
Webster W. Belden, M.D., Instructor in Roentgenology.
IRVING SCHWARTZ, M.D., Instructor in Roentgenology.
E. Forrest Merrill, M.D., Instructor in Roentgenology.

This course is planned to give an introduction to the fundamentals of Roentgenology, beginning with some consideration of the principles of physics involved and then passing to the interpretation of findings on fluoroscopic screen and films. The instructors demonstrate to sections of the second year class the appearance of normal structures, and to sections of the third year class the typical pathologic conditions. In addition, instruction is given in the hospitals on the cases which the students see as clinical clerks.

Attention is also given to the subject of radiotherapy.

#### SUMMARY

			Fourth Year
Lectures		21 hours	Elective
Sections	10 hours	10 hours	

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# MEDICAL JURISPRUDENCE

Отто H. Schultze, M.D., Professor of Medical Jurisprudence.

An elective course of lectures to the fourth year class from the standpoint of the medico-legal autopsy, with demonstration of material, is given by Professor Schultze. This course covers autopsy technique in medico-legal cases, the autopsy protocol, and laboratory methods for establishing the proof of the cause of death in cases of accident, suicide, and homicide; also, the forensic aspect of the subject in cases of indemnity, liability and criminal prosecution.

The clinical aspects of the subject are covered in the regular course of study by several departments and by special lectures. The responsibilities of the physician towards the insane and their relatives and the general public, and the medico-legal aspects of mental deficiency are discussed by the Professor of Psychiatry. The Professor of Obstetrics takes up the moral and legal side of rape, feigned and unconscious pregnancy, what constitutes a "live birth," feigned or unconscious delivery, injury to the fœtus during precipitate labor, post-mortem delivery and the diagnosis of recent delivery. The medicolegal aspects of toxicology are fully covered during the course in Pharmacology.

# HISTORY OF MEDICINE

# G. CANBY ROBINSON, M.D., Professor of Medicine.

An elective course is offered consisting of a series of lectures on the history of medicine which may be attended by students of all classes. The purpose of this course is to present each year a period in the development of knowledge pertaining to medicine and to attempt to link the progress of medicine with other historical events. It is planned to have the course extend over four years and to take up a different phase of medical history each year, so that the various important epochs may be eventually considered. For students especially interested in the history of medicine, further opportunities may be offered through seminars and informal discussions. Special lecturers on historical subjects are presented when opportunities are found. The lectures are given one hour a week during the first trimester.

# MILITARY SCIENCE AND TACTICS

THOMAS G. TOUSEY, M.D., Major, M.C., U. S. Army, Professor of Military Science and Tactics.

This course is concurrent with the medical course, extending over a period of four years (two basic and two advanced), and is designed to prepare students for commissions in the medical section of the Officers' Reserve Corps upon graduation in medicine. Instruction embraces lectures and recitations, with graphic and stereopticon demonstrations one hour each week.

Summer Camps.—One compulsory summer camp during the advanced course is held at the Medical Field Service School, Carlisle, Pa., where actual field conditions are simulated. The whole is calculated to touch every important phase of medico-military science.

At camp the student takes an actual part in the mimic enactment of the various rôles played by the medical service in campaign, of which the two chief functions are the salvage of the wounded and the

prevention of disease.

Sanitation, sanitary devices and epidemiological methods in peace and war time are demonstrated. A generous portion of time is given to athletics, field and gymnasium. There is some drill, some mapping and sketching, with such social entertainment as a college town of 10,000 may provide.

# Synopsis of Course

FIRST YEAR.—The elements of Medico-military Science, including Personal Hygiene, First Aid, Customs of the Service, Articles of War and Court Martial, Organization and Administration, Food, Clothing, Equipment, Shelter.

SECOND YEAR.—Map Reading; Medical Tactics. The Medical Soldier in War. The Medical Regiment. First Aid, Shock, Hemorrhage, Gas, Evacuation and Transportation Methods for Wounded in the Division. Hygiene and Sanitation of Troops and Battle Areas.

THIRD YEAR.—The essentials of Military Hygiene and Sanitation. Water Purification (in peace and war); Disposal of Wastes (in peace and war); Hygiene of Moving Troops; Communicable Diseases (in peace and war).

FOURTH YEAR.—Duties of Reserve Officers. Evacuation of Wounded in Corps, Army and Communications Zone. Hospitals and Hospitalization (in peace and war); Special War Wounds; War Surgery; War Diseases; Chemical Warfare. Rules of Land Warfare. Aviation Medicine. Mobilization.

[In the advanced course the Government gives the student the money value of a ration which has usually amounted to about \$9.00 per month. There is an allowance of 70 cents per diem at the Summer Camp, with a ration, and the transportation from College or home to Camp and return, or 5 cents a mile, in lieu of Government transportation.]

Text-book.—Manual for the Medical Soldier.

Collateral Reading.—Army Medical Bulletins; Army Regulations; Training Regulations; The Medical Department of the U. S. Army in the World War.

# FOURTH YEAR ELECTIVES

# APRIL 6 TO MAY 29, 1931

Students are to register their courses at the Secretary's office on or before March 1st.

#### **ANATOMY**

- I. General Histology. Dr. Nonidez. 2 months. Mondays, Wednesdays, Fridays, 9-12. 3-6 students.
- II. Experimental Cellular Biology. Drs. Nonidez, Armstrong and Schwind. 2 months. Full time desirable. Applicants should have special interest in the physico-chemical aspects of living tissues. The work consists in co-operating in research. 1-2 students.
- III. Anatomy of the Infant. Dr. Stockard. 2 months. Mondays, Wednesdays, Fridays, 2-5 P.M. I-4 students.
- IV. Experimental Embryology. Dr. Stockard. 2 months. Tuesdays, 2-3 P.M. Not less than 6 students.
  - V. Regional Anatomy. Dr. Morrill. 1 month, April or May. The instructor selects, after personal interview, 6–10 students per month. Minimum of 3 half-days per week.
- VI. Applied Anatomy. Dr. Sneed. 1 month. April. Tuesdays and Thursdays, 3-5 P.M.

#### BACTERIOLOGY

- I. Clinical Course in Human Hypersensitiveness.

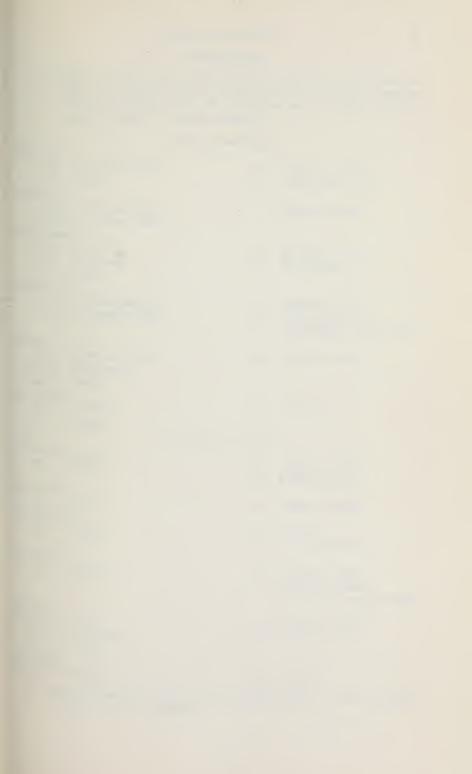
  Asthma, hay fever, urticaria, angio-neurotic edema, food and drug idiosyncrasies. New York Hospital. Tuesday and Thursday at 5 P.M. 8 students. 1 month. Dr. Cooke.
  - (1) Technique of the cutaneous test. (2) Interpretation of the local reaction. (3) History taking in atopic cases. (4) Diagnosis and Treatment.

### CLINICAL PATHOLOGY

I. Students will select a problem in which they are interested or one will be assigned. Dr. Thro. 1 or 2 months. Hours elective between 9 A.M. to 5 P.M. daily except Saturdays, by special arrangement. 1-5 students.

#### DERMATOLOGY

I. Clinical Dermatology and Salvarsan Administration. Drs. Schwartz, Fraser and Staff. 1 month periods. Daily, 1:30-4 P.M. and Tuesdays and Fridays 5-7 P.M. 6 students.





# GYNECOLOGY

I. Clinical Gynecology. Dr. Ward. Woman's Hospital. 1 month periods. Daily, as scheduled below. Work conducted in Wards, Operating Room, Laboratory and O. P. D. Preparation of a thesis or special research problem. 4 selected students.

24	A.	First Two Weeks	s
Monday.	Operative Clinic	0	Operative Clinic
9-12. 12- 1.	Operative Clinic.		Operative Clinic. Pathological Lab.
Tuesday.	Study.	4-5.	Tatifological Lab.
	Pathological Lab.	2-5	Operative Clinic.
	c. Cystos. Clinic.	~ 3.	operative onme.
Wednesda			
9-10.	O. P. D.	2-4.	O. P. D.
10-11.	Follow-up.		Pathological Lab.
II- I.	Study.		6
Thursday.			
	Pathological Lab.		Operative Clinic.
11-12:30	o. Cystos. Clinic.	4-5.	Pathological Lab.
73.11		5	Conference, Surgical Staff.
Friday.	0		0
9-11.	Operative Clinic.	2-5.	Operative Clinic.
	Conference.		
12- 1.	•		
Saturday.	O. P. D.	0.0	O $P$ $D$
11- 1.		2-3.	O. P. D.
11 - 1.		SECOND TWO WEE	r e
Monday.	D.	SECOND I WO WEE	K3
Q-I.	Wards.	2-4.	Operative Clinic.
<i>y</i>			Pathological Lab.
Tuesday.		- T	
9-1.	Wards.	2-5.	Operative Clinic.
Wednesda	y <b>.</b>		·
9-1.	Wards.	2-4.	O. P. D.
had a		4-5.	Pathological Lab.
Thursday.			
9-1.	Wards.		Operative Clinic.
			Pathological Lab.
Friday		5	Conference, Surgical Staff.
Friday.	Wards.		On and in Clinia
9-10.	Conference.	2-5.	Operative Clinic.
11- 1.			
Saturday.	cuay.		

II. Clinical Gynecology. Dr. McGrath, Cornell Clinic. 1 month periods.

2-3. O. P. D.

Wards.

Daily, I-4 P.M. 3 students.

# LARYNGOLOGY

- I. Clinical Clerkship in Laryngology and Rhinology. Dr. Palmer. Course includes operative work, comprising ordinary operations performed on the nose and throat as well as the modern procedures employed in endoscopy and rhino-plasty. I month periods. All day. I selected student.
- II. Clinical courses in Laryngology and Rhinology. Drs. Palmer and Staff.

  1 month periods. Daily, 2-4 P.M. College Clinic.

# **MEDICINE**

I. Clinical Clerks. Drs. Conner, Foster and Stillman. New York Hospital.

1 month periods. Daily, all day. 5 students.

II. Physical Diagnosis of Diseases of the Chest. Dr. Martin. Bellevue Hospital. April or May. Tuesday and Friday, 2-4 P.M. Students are expected to spend at least two mornings per week preparing cases. Open to fourth year students and graduates. 5 students.

III. Advanced Course in Metabolism Methods. Drs. DuBois, Richardson, McClellan and Shorr. Bellevue Hospital. The hours and work in this course will be arranged, if possible, according to the free time of the students. Instruction will be given in the technique of basal metabolism determinations by various methods including some work with the respiration calorimeter. Students will be instructed in the planning of diets and the methods of conducting metabolism experiments. Each student is expected to take part in some original investigation. 1 or 2 months. Daily, one-half day. 4 students.

IV. Fluoroscopy of the Gastro-Intestinal Tract. Drs. Holland and Hauser. New York Hospital. 1 month periods. Tuesday and Friday, 4-6 P.M. 6 students.

V. Clinical Electrocardiography. Dr. Pardee. New York Hospital. 1 month periods. Monday and Friday, 3-5 P.M. 4 students.

VI. Diagnosis and Treatment of Heart Failure. Dr. Eggleston. Bellevue Hospital. 1 month periods. Monday and Wednesday, 2 to 5 P.M. 6 students. Students are expected to devote some additional time to the preparation of cases and the study of literature.

VII. Physical Diagnosis of the Chest. Dr. Evelyn Holt. New York Hospital.

I month periods. Monday and Wednesday, 2-4 P.M. 6 students.

VIII. Clinical Course in Asthma and Hay Fever. Dr. Baldwin. At the Cornell Clinic. Tuesdays, 1:30 to 4 P.M. 3 students. 1 month periods.

IX. Tuberculosis and Other Diseases of the Lungs. Dr. H. A. Bray. This course is given at the Ray Brook Sanitarium. Quarters for the students are provided in the Sanitarium but the students must pay their railroad expenses. I month periods. 6 students.

X. Course in Gastro-Enterology. Dr. Weintraub and Associates. Cornell Clinic. Course to include the general examination of patient, fluoroscopic and proctoscopic examinations, diagnosis and treatment. 1 month periods. Daily, 9:30 A.M. to 12 M. 4 students. (See also Psychiatry IV).

# MEDICAL JURISPRUDENCE

I. Course of lectures on Medico-legal relations of practice and forensic medicine. Dr. Schultze. April and May. Mondays and Wednesdays 4-5 P.M. Number of students not limited.

#### NEUROLOGY

# Courses in Neurology and Neuro-Anatomy one-month periods

I. Neurology: clinics at Cornell Dispensary Monday, Tuesday, Thursday, I to 3 P.M.

II. Neurology: Bellevue Hospital. Dr. Kennedy and Assistants. Wednesday and Saturday 10:30 A.M. to 12 M. Work in the wards and in the neurological laboratory under the supervision of the visiting staff.

III. Neurological Clinic. Neurological Institute. One day, 2-5 P.M.
Students who desire additional Neurology may arrange for it by consulting Dr. Foster Kennedy.

Students may take such of these courses as they choose, except that it is imperative that they take at least the afternoon course at the College Clinic.

IV. Neuro-Anatomy and Neuro-Pathology. Dr. Stevenson. See Pathology IV.

#### **OBSTETRICS**

I. Clinical Clerkship in Obstetrics. Dr. Williamson. Berwind Maternity Clinic and Bellevue Hospital. I month periods. Full time or 7 A.M. to 7 P.M. 15 students.

#### OPHTHALMOLOGY

- I. Clinical Clerks. Dr. Samuels. New York Eye and Ear Infirmary, New York Hospital and College Dispensary. 1 month periods. All day. 2 students.
- II. Ophthalmology and Refraction. Dr. Reese. Cornell Dispensary.
  I month periods. Mondays, Wednesdays and Fridays, 2-4 P.M.
  6 students.
- III. Ophthalmoscopy and Refraction. Dr. Berliner. N. Y. Ear and Eye Infirmary. I month periods. Mondays and Fridays, 2-4 P.M.
- IV. Ophthalmoscopy. Dr. Boyes. N. Y. Eye and Ear Infirmary. Mondays and Fridays, 2-4 P.M. 10 students.
- V. Ophthalmoscopy and Refraction. Dr. Berliner. Cornell Clinic, Tuesdays and Thursdays, 1-4 P.M. 6 students.

#### OTOLOGY

I. Otology. Dr. McAuliffe. College Clinic. 1 month periods. Daily, 2-4 P.M. 3 students.

#### **ORTHOPEDICS**

I. The Orthopedic Department of the Hospital for Ruptured and Crippled. Mondays, Wednesdays and Fridays 9 A.M. to 12 M. and 3-5 P.M. Doctor Balenzweig. 10-12 students.

II. The College Clinic. Mondays, Wednesdays and Fridays, 1-4 P.M. 2 students for 1 month periods. Dr. Cilley.

#### **PATHOLOGY**

I. Tumor Diagnosis. Dr. Ewing and staff. Memorial Hospital. 2 months. 5 days, 1-5 P.M. daily, except Saturdays. 5 students.

II. Pathological Thesis. Dr. Ewing. 2 months. All day, except Saturday.

Saturday, 9 A.M. to 12 M. 5 students.

III. Gynecological Pathology. Dr. L'Esperance. 1 month. Monday, Wednesday, Friday, 3 to 5 P.M.

IV. Neuropathology. Dr. Stevenson. 1 month, May only. Monday, Tuesday and Friday, 9 A.M. to 12 M. 6 students.

### **PEDIATRICS**

I. Clinical Pediatrics. Drs. Schloss, Schroeder, Hoag and Sammis. New York Nursery and Child's Hospital daily 9 A.M. to 5 P.M. for periods of 1 month. Limited to 3 or 4 students.

II. Clinical Pediatrics. Dr. Stimson.

Cornell Clinic, Mondays 1:30–4; Wednesdays and Fridays 9:30–12. Malnutrition in older children. Unusual conditions for diagnosis and treatment.

# PUBLIC HEALTH AND PREVENTIVE MEDICINE

I. Laboratory Methods and Procedures. Drs. Torrey and Kahn. Loomis Laboratory. Daily until 12 M., 2 months. 1 student.

#### PHARMACOLOGY

I. Pharmacology of Cardiac Drugs. Drs. Hatcher and Gold. 2-week periods. Monday, Wednesday, Friday, 2-5 P.M. 4-12 students. Laboratory work with conferences. The course is intended to aid the student in the therapeutic use of various drugs in this group.

# **PHYSIOLOGY**

I. Calorimeter Investigation. Dr. Lusk. April only. 4 weeks. 9 A.M. to I P.M. daily. 2 students.

II. Electrocardiography. Dr. Edwards. 4 weeks. 1-5 P.M. daily. 1-4 stu-

dents.

#### **PSYCHIATRY**

I. Clinical Psychiatry. Dr. Eidson and Associates, Cornell Clinic. Course to include instruction in psycho-neurotic conditions, mild psychoses, and other types of psychiatric problems met with in office and outpatient practice. 1 month periods. Monday and Thursday, 9-11 A.M. Wednesday, 2-5 P.M. 4 students.

II. Clinical Psychiatry. Dr. Sprague, New York Hospital. Instruction in the examination and treatment of psychiatric conditions met with in general medical and surgical hospital and private practice. 1 month periods. Thursday, 9 A.M. to 12 M. and Friday, 2-4 P.M. 4 students. III. Clinical Psychiatry. Dr. Ciccarelli, Manhattan State Hospital, Ward's Island. Instruction and practice in examination, diagnosis, and treatment of major psychotic conditions, with special reference to problems met in general medical practice. I month periods. Monday, Wednesday, and Friday, 9 A.M. to 12 M. Not less than 4 students.

IV. In co-operation with the Department of Medicine students registered for Medicine X, Gastro-Enterology, receive instruction in associated

psychiatric conditions by Dr. Stevenson.

# SURGERY

I. Clinical Clerks. Drs. Santee and Dudley. Bellevue Hospital. 1 month periods. All day. 4 selected students.

II. Surgical Pathology. Dr. Symmers. Bellevue Hospital. Laboratory and

wards. 1 month. Daily, full time. 6 students.

III. Clinical Clerks. Dr. Gibson. New York Hospital. 1 month periods. All

day. 4 students.

IV. Dispensary Course. New York Hospital. Drs. Weeden, Cornell, Wade, Duley and Jensen. Clinical course in fractures of upper extremity, minor surgery, "accident" surgery, varicosities and care and treatment of post-operative wounds. 4 weeks. Tuesday, Thursday and Saturday, 9 A.M. to 12 M. 8 students.

V. Surgical Diseases in Children. St. Mary's Hospital. Dr. Farr Mondays,

9 to 12. One month periods. 4 students.

VI. Surgical Diagnosis and Minor Surgery. Dr. Patterson. Cornell Clinic. Daily except Saturday, 1:30-4 P.M. and Tuesday and Friday, 5-7 P.M.

I month periods. 3 students.

VII. Roentgenological Diagnosis in Gastroenterology. Bellevue Hospital. Dr. Buckstein. Monday, Wednesday and Friday, 1 to 2:30 P.M. 1 month periods. 5 students.

### **UROLOGY**

I. Minor Urology. Drs. Jeck and Delzell, College Clinic. 1 month periods.

Daily, 1-4 P.M. 8 students.

II. Major Urology. Drs. Stevens and Jeck. Bellevue Hospital, Ward K4, 8:30 A.M. to 5 P.M., daily. Diagnosis and Treatment of Surgical Urological conditions. 1 month. 6 students.

III. Minor Ūrology and Elementary Cystoscopy. Drs. Jeck and Delzell. Cornell Clinic. 2 months, April and May. Daily, 2 to 4 P.M. 4 students.

IV. Diagnosis and Treatment of Neoplasms of the Urinary and Male Genital Tracts. Dr. Barringer. Memorial Hospital. Subject to special arrangement with instructor.

Students not registering for all four courses may be accepted for III and IV only.

Note.—In addition to the above, students will often be able to arrange individual work on application to the heads of Departments.

The Faculty expressly reserves the right to make alterations in the curriculum whenever advisable and without notice.

# SCHEDULE OF COURSES

# FIRST YEAR—SESSION OF 1930-1931—FIRST TERM

SEPTEMBER 30 TO DECEMBER 20

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday					
9											
10			ANAT	OMY							
11											
1	Anatomy	Chem. L.	Anatomy	Chem. L.	Chem. R.						
2	Anatomy (Histology and	Histology	(Histology								
3	Embryology)			Chem. Lab.	Anatomy (Histology						
4		Military Science L. Prof. Tousey	Medical History * Lect. Prof. Robinson		and Embryology)						
5											

<sup>\*</sup> Elective.

# FIRST YEAR—SESSION OF 1930–1931—SECOND TERM

JANUARY 5 TO MARCH 14

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9				Chemistry Conference	omy	
10	(Histole	Anatomy ogy and Embr	yology)	Anatomy	and Embryology)	
11						
1		Chem. L.		Chem. L.		
2	Anatomy		Anatomy		Anatomy	
3		Chem. Lab.		Chem. Lab.		
4		Military Science L. Prof. Tousey				

# FIRST YEAR—SESSION 1930-1931—THIRD TERM

MARCH 16 TO MAY 29

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9	Chem. L.	Physiol. L.	Chem. L.	Physiol. L.		Physiol. L.
10	Chem. Lab.	Physiol. Lab.	Chem. Lab.	Physiol, Lab.	Chem. R. Physiol. Lect.	Physiol, Lab.
3	Anatomy (Neuro-Anat.)	Physiol, R.  Military Science L. Prof. Tousey	Anatomy (Neuro-Anat.)	Physiol. R.	Anatomy (Neuro-Anat.)	

Abbreviations—L., lectures; Lab., laboratory; Rec., recitations; Sec., section (the class being assigned to two or more divisions for certain exercises); B. H., Bellevue Hospital (Second Division); B. H. 4, Bellevue Hospital (Fourth Division); B. M. C., Berwind Maternity Clinic; C. Cornell Clinic; Man. Mat., Manhattan Maternity Hospital; Mem. H., Memorial Hospital; N. C., New York Nursery and Child's Hospital; N. Y., New York Hospital; O.P.D., Bellevue Hospital, Out Patient Department; R. & C., Hospital for the Ruptured and Crippled; St. L. Luke's Hospital; St. M., St. Mary's Hospital; W. I., Ward's Island, Manhattan State Hospital; Wom. Hosp. Woman's Hospital; W. P., Willard Parker Hospital.

NOTE.—The Faculty expressly reserves the right to make alterations in the curriculum whenever advisable and withou notice.





# SECOND YEAR—SESSION OF 1930-1931—FIRST TERM SEPTEMBER 30 TO DECEMBER 20

	Monday		Tuesday	Wednesda	у	Thursday	Friday		Saturday	
9	Physiology Lect. †		Physiology Lect. †	Physiology Lect. †		Physiology † Lect.	Physiology †		Surgery	9
10	Physiology	Anatomy *	Pathology	Physiology	Anatomy *	Pathological	Physiology	Anatomy *	В. Н.	10
II	Lab. †	Anat	Lab.	Lab. †	Anat	Anatomy	Lab. †	Anat		11
12						Surgery Rec.				12
I			Military Sci. Lect.** Prof. Allen							1
2	Physiology Rec. †		Surgery Lect.	Physiology Rec. †		Pathology Lab.	Physiology Seminar †			2
3	Medicine Clinic		Physical Diagnosis	Medicine Clinic B. I (Pathologic Physiology	I. al	Led U.	Medicine Lect. (Path Physiol.)			3
4	N. Y. §	1	Lect. and Demonstr.	Medical History * Prof. Robins	k son					4
5										5

<sup>\*</sup>Last three weeks only. \*\* Elective.

# SECOND YEAR—SESSION OF 1930-1931—SECOND TERM JANUARY 5 TO MARCH 14

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
9	Psychiatry L. Prof. Eidson	Sections (See Schedule I)	Pathology Laboratory	Sections (See Schedule I)	Pathology Laboratory	Sections (See Schedule I)	9
10	Pathology Laboratory		Pathological Anatomy		Medicine Rec.		11 12
I		Military Science Lect.** Prof. Tousey					1
3	Sections A vening days Sections I uary 5.		3 4				

<sup>†</sup> First nine weeks only.

<sup>§</sup> First six weeks only.

<sup>\*\*</sup> Elective.

NOTE.—The Faculty expressly reserves the right to make alterations in the curriculum whenever adoisable and without notice.

For abbreviations see page 92.

# SECOND YEAR—SESSION OF 1930-1931—THIRD TERM March 16 to May 29

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
9					Surgery Clinic, B. H.	Pathology	9
10	Pharmacology Laboratory	Surgery Clinic, St. L.	Pathology Laboratory	Pharmacology Laboratory	Pathology	Laboratory	10
11					Laboratory	Pathological	11
12		Medicine Rec.				Anatomy	12
I	Medicine Clinic B. H.		Military * Science Lect. Prof. Tousey	Urology Lect. Prof. Keyes	Dermatology Clinic Prof. Schwartz		1
2		Bacteriolo	gy ‡ { A-E, Mch.	16-20 and Mch. 16-20 and Apr. 2	23-Apr. 24		2
3	Sec	, 111ay 29		3			
4		Ophthalmology Clinic Prof. Samuels					4

\* Elective. ‡ No Bacteriology on Tuesdays.

# THIRD YEAR—SESSION OF 1930-1931—FIRST TERM SEPTEMBER 30 TO DECEMBER 20

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday			
9	Pathology	Public Health Lab.	Medicine Lect. Prof. Conner	Public Health Lab.	Pathology Laboratory	Public Health Lab.	9		
10	Laboratory	Lab.	Medicine Rec.	Lau.	Daboratory	Lab.	10		
11	Medical Clinic C.		Clinical Pathology						
12	Cillic C.								
I							1		
2	Public Health	Ophthalmology Clinic Prof. Samuels	Military † Science Prof. Tousey	Orthopedic † Lect. Prof. Wallace	Pharmacology Prof. Hatcher		2		
3	Field Excursion	Pharmacology Lect. Prof. Hatcher		Pharmacology Lect.	Dermatology Clinic Prof. Schwartz		3		
4		Obstetrics Lect. Prof. Williamson	Medical History Prof. Robinson	Lab. Pharm.	Psychiatry Clinic		4		

† Elective.

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# THIRD YEAR—SESSION OF 1930-1931—SECOND TERM

JANUARY 5 TO MARCH 14

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
9	Surgery Lect. Prof. Gibson	Surgery Sections	Medicine Lect. Prof. Conner	Pediatrics Clinic, N. & C.	Public Health Lect.	Urology Clinic	9
10	Pediatric Rec.	St. L. Patho	St. L. Pathological Medicine Rec. Prof. Schloss	Gynecology Lect. Prof. Ward	B.H. Prof. Keyes	10	
11	Operative	Surgery B.H.*	D. LU. II L.L.	Psychiatry Clinic Prof. Henry	Operative	Psychiatry Lect. Prof. Henry	11
12	Surgery	Mem. H.	Military † Science Lect. Prof. Tousey	Surgery Rec.	Surgery	Surgery Rec.	12
I							I
2			SECTIONS				2
3			3				
4	Roentgenology Lect. Prof. Imboden	Obstetrics Rec. Prof. Williamso	Dermatology Clinic Prof. Schwartz	Otology Lect. or Clinic Prof. McAuliffe	Neurology Clinic Prof. Kennedy		4

<sup>\*</sup>Sections A to E take Surgery the first half term, Pathological Anatomy the second.
Sections F to J take Surgery the second half term, Pathological Anatomy the first. Sections change 9 A.M., February 9, 1931.

† Elective.

# THIRD YEAR—SESSION OF 1930-1931—THIRD TERM

March 16 to May 29

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
9	Surgery Lect. Prof. Gibson	Psychiatry Clinic, W.I.	Public Health Lect.	Pediatrics Clinic, N.C.	Surgery Clinic, N.Y.	Military† Science Lect. Prof. Tousey	9
10	Pediatrics Rec.	Dr. Lonergan	Medicine Rec.	Prof. Schloss	Prof. Gibson	Public Health Lect.	10
11	Surgery Rec.		Medicine Clinic, C.C. Prof. Conner		Obstetrics Lect. Prof. Williamson	Psychiatry Lect.	11
12	Surgery Lect.				Therapeutics Prof. Goodridge	Surgery Rec.	12
1							I
2			SECTIONS				2
3				3			
4	Roentgenology Lect. Prof. Imboden	Obstetrics Rec.		Laryngology Lect. Prof. Palmer	Neurology Lect. Prof. Kennedy		4

#### †Elective.

NOTE.—The Faculty expressly reserves the right to make alterations in the curriculum whenever advisable and without notice. For abbreviations see page 92.

# FOURTH YEAR-SESSION OF 1930-1931

SEPTEMBER 30 TO MARCH 28

	Medicine		Surgery		Neurology B. H. M. F.	Pediatrics N. C. Tu. Th. S.	Orthopedics R. & C. M.— M. F.	Obstetrics B. M. C. and Gynecol-	Elective †	
	N. Y.	В. Н.	N. Y.	В. Н.	2-5 P.M. Wed. 9-12 M.	9 A.M I P.M.	9 A.M12 M. Wed. 2-5 P.M.	ogy Wom. Hosp.	2-5 P.M.	
September 30 to October 25	A	D	F	С	Е	Е	Е		E*	
October 27 to November 22	В	E	D	A	F	F	F	for	F*	
November 24 to December 20.	С	F	E	В	D	D	D	site page iments)	D*	
January 5 to January 31	D	A	С	F	В	В	В	(See opposite page for assignments)	В	
February 2 to February 28	Е	В	A	D	С	- C	С	3	С	
March 2 to March 28	F	С	В	Е	A	A	A		A	
March 30 to April 4	Examinations in all subjects.									

\*A course of Lectures on Medical History, to students of all four classes, is offered by Professor G. Canby Robinson Wednesdays, 4 to 5 P.M., October 1 to December 3.

† Students desiring electives will first consult the head of department and then register at the Secretary's office four week in advance for Elective work on Tuesday, Thursday and Saturday P.M.

# FOURTH YEAR—SESSION OF 1930-1931

APRIL 6 TO MAY 29

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday							
9													
10	ELECTIVES												
11	Students will register their courses at the College office												
1 2	on or before March 1. One-month courses run four weeks only. They change May 4, 9 л.м.												
3	(No course can be dropped without written permission from heads of all departments concerned, and the Dean.)  Students will take work in Pathological Anatomy (Autopsies) as posted on Bulletin Board.												
4													
5													

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# FOURTH YEAR SECTIONS IN GYNECOLOGY AND OBSTETRICS Session of 1930-1931

	Obstetrics Section, B. M. C. full time*	Gynecology Section Wom. Hosp.† 9 A.M.—5 P.M.
September 28 to October 11	B <sub>2</sub>	В1
October 12 to October 25	В1	В2
October 26 to November 8	C <sub>2</sub>	Cı
November 9 to November 22	Cı	C <sub>2</sub>
November 23 to December 6	A <sub>2</sub>	A <sub>1</sub>
December 7 to December 20	Aı	A <sub>2</sub>
December 21 to January 3		
January 4 to January 17	E <sub>1</sub>	E <sub>2</sub>
January 18 to January 31	E <sub>2</sub>	E <sub>1</sub>
February 1 to February 14	F <sub>1</sub>	F <sub>2</sub>
February 15 to February 28	F <sub>2</sub>	Fi
March I to March 14	D <sub>1</sub>	$D_2$
March 15 to March 28	$D_2$	D <sub>1</sub>

<sup>\*</sup>Students report at 9 A.M. on the first day of each assignment. Begins Sunday.
†Begins Monday.
NOTE.—The Faculty expressly reserves the right to make alterations in the curriculum whenever advisable and without notice.
For abbreviations see page 92.

## SECTION CLASSES

DETAIL SCHEDULE of Second and Third Years SESSION OF 1930-1931

NOTE. Section periods in each instance include both dates. Sections are designated by letters; a figure following indicates a half section.

#### SECTION SCHEDULE I

## SECOND YEAR—SECOND TERM—JANUARY 5 TO MARCH 14

"Hospital Sections"	Jan. 6-22	Jan. 24-Feb. 7	Feb. 10-26	Feb. 28-Mar. 14
Surgery, 9-10.30 a.m. Tues. and Sat., B. H.; Thur., St.M.	A B C <sub>1</sub>	C <sub>2</sub> D E	F G H <sub>1</sub>	H <sub>2</sub> I J
Medicine, 9-11 A.M. Tues., Thur. and Sat., B. H.	C <sub>2</sub> D E	F G H <sub>1</sub>	H <sub>2</sub> I J	A B C <sub>1</sub>
Medicine, 9-11 A.M. Tues., Thur. and Sat., N. Y.	F G H <sub>1</sub>	H <sub>2</sub> I J	A B C <sub>1</sub>	C <sub>2</sub> D E
Medicine, 9–11 A.M. Tues., Thur. and Sat., B. H. IV	H <sub>2</sub> I J	A B C <sub>1</sub>	C <sub>2</sub> D E	F G Hı

The numerals 1 or 2 after a section letter indicate the 1st or 2d half section.

# SECTION SCHEDULE II SECOND YEAR—THIRD TERM—MARCH 16 TO MAY 29

"Cornell C	Tinic Sections"	Monday 2.30-4.30 P.M.	Tuesday 2-4 P.M.	Wednesday 2-4 P.M.	Thursday 2-4 P.M.	Friday 2-4 P.M.
T)	March 23-April 24	F	G	Н	I	J
Dermatology	April 27-May 29	A	В	С	D	E
1	March 23-April 24	J	F	G	Н	I
Laryngology	Laryngology April 27 May 29		A	В	С	D
77 1	March 23-April 24	1	J	F	G	Н
Urology	April 27-May 29	D	Е	A	В	С
0.1.1.15.1	March 23-April 24		HI		J F	G
Ophthalinology April 27 May 29			C D		E A	В
March 23 April 24			G H F†	1 J		
Roentgenology	April 27 May 29		A† B C	DE		

† One section comes Tues. 5-6 P.M.

NOTE. The Faculty expressly reserves the right to make alterations in the curriculum whenever advisable and without notice





SECTION SCHEDULE III THIRD YEAR-SECOND AND THIRD TERMS-JANUARY 5 TO MAY 29

	7	Term II, Jan. 5-Mar. 14				Те	rm III	, Mar. 1	6–May	29
	Mon.	Tues.	Wed.	Thurs.	Fri.	Mon.	Tues.	Wed.	Thurs.	Fri.
Medicine, C., 2-4 P.M.	A	В	С	D	E	F	G	Н	I	J
Dermatology, C., 2-3 P.M.	В	С	D	Е	A	G	Н	I	J	F
Laryngology, C., 3-4 P.M.	В	С	D	Е	A	G	Н	I	J	F
Pediatrics, N.C., 1.30-3.30 P.M.	С	D	E	A	В	Н	I	J	F	G
Obstetrics, (Manikin Sec.) 3-4 P.M.	D J		A		C G	I E		F		H B
Gynecology, C., 2-4 P.M.*	E <sub>1</sub> E <sub>2</sub>	A <sub>1</sub> A <sub>2</sub>	B <sub>1</sub> B <sub>2</sub>	C <sub>1</sub> C <sub>2</sub>	$D_1$ $D_2$	J <sub>1</sub> J <sub>2</sub>	F <sub>1</sub> F <sub>2</sub>	G1 G2	H <sub>1</sub> H <sub>2</sub>	I <sub>1</sub> I <sub>2</sub>
Orthopedics, C., 2-4 P.M.*	E <sub>2</sub> E <sub>1</sub>	A <sub>2</sub> A <sub>1</sub>	B <sub>2</sub> B <sub>1</sub>	C <sub>2</sub> C <sub>1</sub>	$D_2$ $D_1$	J <sub>2</sub> J <sub>1</sub>	F <sub>2</sub> F <sub>1</sub>	G <sub>2</sub> G <sub>1</sub>	H <sub>2</sub> H <sub>1</sub>	I <sub>2</sub> I <sub>1</sub>
Otology, C., 2-3 P.M. (5 times only, beginning Jan. 26 and April 6)	D	E	A	В	С	I	J	F	G	Н
Obstetrics, B.H., (or Man. Mat.) 2-4 P.M.	G H		I J		F	B		D E		A
Pediatrics, W.P., 1.45-3.45 P.M.‡		G I		F H J			B		A D E	
Roentgenology, 1.30-2.30 P.M.	I J F <sub>1</sub>		F <sub>2</sub> G H			D E A <sub>1</sub>		A <sub>2</sub> B C		

<sup>\*</sup>Each half section takes 5 weeks only—Sections change at 9 A.M., February 9 and April 20.

‡ First three exercises at the College, thereafter at W. P. Hospital.

Sections G, I, F, H and J report at the College Thursdays only, January 5 to 25, thereafter at W. P. Hospital, G and I on Tuesdays, F, H and J on Thursdays, as scheduled.

Similarly sections B, C. A, D and E report at the College Thursdays only, March 16 to April 4; thereafter at W. P. Hospital, and B and C on Tuesdays, A, D and E on Thursdays, as scheduled.

NOTE.—The Faculty expressly reserves the right to make alterations in the curriculum whenever advisable and without notice.

For abbreviations see page 92.

# COURSES FOR GRADUATES AND SPECIAL STUDENTS

Special courses are offered in several of the departments to graduates in medicine, teachers and advanced students and research workers in the medical sciences. For the benefit of such applicants these courses have been compiled, and are listed below under the several departments by which they are offered.

The courses offered with the exceptions indicated are minor courses continuing six to eight weeks. Several departments are equipped to offer co-ordinated work extending over longer periods. Such courses can be arranged for the student by consultation with the head of

the department.

In general it is recommended that students applying for admission to graduate courses so far as possible arrange to take consecutive work for a period of at least one College session. Such courses will be under the immediate supervision of an instructor from the department in which the greater portion of the student's work is performed.

The faculty reserve the right to limit the number of applicants received

and to alter or withdraw courses at any time without notice.

## **ADMISSION**

Graduates in Medicine, Arts or Science, from approved colleges, who desire to pursue courses not leading to a degree, are admitted to registration as graduate students, after approval by the head of the department. Such courses do not count in any way as a part of the four years' course required of candidates for the degree of Doctor in Medicine. All students or other workers pursuing courses indicated below are required to first register at the office of the Secretary.

#### FFFS

Graduate students are admitted to any of the courses of instruction offered on the payment of a registration fee of ten dollars, an administration fee of five dollars and the tuition fee assigned to the course. Those who have been previously registered as students in the Cornell University Medical College are not required to pay the registration fee.

In the courses outlined below, those marked with an \* may be begun at any time during the session.

#### ANATOMY

I. Embryology.

Terms I and II. September to March. Fee \$50. Details on page 50.





2.\* Histological Technic.

Laboratory at least three hours daily and conferences with instructors. Fee \$30.

3 and 4. General Histology, Microscopical Anatomy.

Terms I and II. September to March. Details on page 50. Fee \$50.

5.\* Dissection.

See Courses I-V, page 51. Fee \$30 per term (ten weeks); or for the entire dissection, \$50.

6. Neuro-Anatomy.

Term III. March to May. Details on page 51. Fee \$30.

7.\* Anatomical Research.

Subject to special arrangement with head of department.

#### BACTERIOLOGY

I. Applied Immunology.

Drs. Coca and Cooke. Clinical work at the New York Hospital with the collaboration of the Department of Medicine. Laboratory Course at the New York Hospital the entire month of June five mornings and four afternoons a week. Fee \$205.

The laboratory course includes the demonstration of the principal phenomena of anaphylaxis in the guinea pig and the rabbit, with a discussion of the relation of anaphylaxis to human hypersensitiveness; the methods of preparing and standardizing the fluid extracts and solutions used in the diagnosis and treatment of asthma and hay fever and the methods of collecting and preserving pollens that are the excitants of seasonal hay fever and asthma.

Any of the clinical applications of immunological principles (such as blood matching, the Schick and Dick tests, the forensic identification of human blood) will be demonstrated on request. Graduate students have access to

the laboratory at any time during the day.

The clinical course consists of demonstrations in the Dispensary of the New York Hospital, at the asthma and hay fever clinic, four afternoons weekly. Each individual has ample opportunity to become thoroughly acquainted with the methods of diagnosis and treatment of these and allied conditions.

Applications for this course should be made before May 1.

#### **CHEMISTRY**

1.\* Physical Chemistry as applied to Medicine.

Eleven weeks, two lectures, one laboratory period. Fee \$25.

2.\* Physiological Chemistry.

Two terms, of ten and eleven weeks each. Two lectures and two laboratory periods each week. Fee \$25 per term.

3.\* Chemical Pathology.

A practical course in methods of blood analysis. Two three hour periods a week for one month. Fee \$25.

4.\* Research Work in Physiological Chemistry, Chemical Pathology, or Toxicology.

Hours and fee to be arranged with each student.

Note.—Courses in this department are subject to special arrangement with head of department. Special students in this department must present satisfactory evidence of preliminary training in inorganic chemistry with laboratory work as outlined on page 38.

## CLINICAL PATHOLOGY

I. Laboratory Diagnosis.

Elementary and advanced instruction is offered in all the tests commonly performed in a clinical laboratory. The time the course is given and the fee are to be arranged with Professor Thro.

#### **DERMATOLOGY**

1.\* Clinical Dermatology.

Ambulatory cases. Thrice weekly for four weeks. 2-3 P.M. Fee \$50.

2.\* Histopathology of the Skin and Its Diseases.

Twice weekly for six weeks. Class of two to five students. Fee \$100.

#### LARYNGOLOGY AND RHINOLOGY

1.\* Clinical Laryngology.

Dr. Palmer and staff. Course of fifteen lessons on diagnosis and therapeutics, including operative procedures and clinics on tonsillectomy and bronchoscopy at option of student. 2 to 4 P.M., November 28 to December 16, or June 11 to 29. Six students. Fee \$25.

## MEDICINE

I. Applied Immunology. (See Bacteriology.)

2. Advanced Course in Metabolism Methods. (See page 88.)

#### **NEUROLOGY**

1. Neuro-anatomy and Neuro-pathology.

See Departments of Anatomy and Pathology. The student must present satisfactory evidence of an adequate knowledge of general histology. Fee \$25 in each department.

3.\* Clinical Neurology.

Includes study of ambulatory and ward cases, with medical and electrical therapeutics. Two hours daily for two months. Should be preceded by Course 1 or its equivalent. Fee \$50.

4.\* Psycho-therapeutics.

Twice weekly for eight weeks. Should be preceded or taken in conjunction with Course 3. Fee \$25.

#### **OPHTHALMOLOGY**

1.\* Ophthalmoscopy.
20 hours. Fee \$25.

2.\* External Diseases of the Eye. 20 hours. Fee \$25.

3.\* Diseases of the Eye Muscles.

15 hours. Fee \$20.

- 4.\* Refraction and Retinoscopy. 20 hours. Fee \$25.
- 5.\* Simulation of Amblyopia and Amaurosis.

5 hours. Fee \$20.

6.\* Clinical Ophthalmology.

Daily 2-3 P.M. Fee, per month, \$25.

7.\* Ophthalmic Operation on the Cadaver.

(This course is given in co-operation with the Department of Anatomy.) 20 hours. Fee \$50.

8.\* Pathological Histology of the Eye.

(This course is given in co-operation with the Department of Pathology and must be applied for in advance.) 20 hours. Fee \$50.

9.\* Slit-lamp Microscopy. 20 hours. Fee \$50.

## **PATHOLOGY**

1.\* Gynecological Pathology.

Dr. L'Esperance. Six hours or more weekly for about one month. Class is limited to ten students. Fee \$50.

2.\* Special Courses in Tumor Diagnosis.

Courses are open to graduate students in the College Laboratory and in the Memorial Hospital at times to meet the convenience of applicants. Fee to be arranged with instructor.

3.\* Neuro-pathology.

Dr. Stevenson. Hours to be arranged. Class limited to five students. Fee \$50.

#### PHARMACOLOGY

1.\* Laboratory Pharmacology.

Under supervision and including conferences with instructor. Fee \$25.

2.\* Research Work in Pharmacology.

#### **PHYSIOLOGY**

1. Physiology.

Begins with Term III in March and continues in Term I of the following session. Details on page 54. Fee \$50.

2.\* Physiological Research.

Subject to special arrangement with head of department.

# THE GRADUATE SCHOOL

The Faculty of the Graduate School has control of graduate work in all departments of Cornell University and exclusive jurisdiction over the granting of all advanced degrees. Certain professors in the scientific departments of the Medical College in New York City offer graduate instruction as an integral part of the Graduate School of Cornell University. Properly qualified students may accordingly enter upon graduate work in New York City under the jurisdiction of professors in these departments and may become candidates for advanced degrees under the same conditions as apply to students in other divisions of the Graduate School. In all cases, such students are required to register each term at the office of the Dean of the Graduate School, Cornell University, Ithaca, N. Y., and at the office of the Director of the Medical College in New York City. A copy of the Announcement of the Graduate School, giving the rules and regulations pertaining to advanced degrees and the list of departments and subjects in which graduate instruction is offered, will be sent on application to the Dean of the Graduate School.

Graduates of the following colleges of the University, namely, the College of Arts and Sciences, the Medical College, the College of Architecture, the College of Law, the College of Engineering, and the New York State Colleges of Agriculture, Home Economics and Veterinary Medicine—or of other institutions in which the requirements for the first degree are substantially equivalent—are eligible for admission to the Graduate School. In other cases, studies pursued after graduation, and experience gained by professional work or otherwise are taken into consideration in deciding whether the candidate's preparation as a whole is such as to justify his admission to the Graduate School.

Graduate students resident in New York City and working under the direction of members of the Faculty connected with the Cornell Medical College are students in the Graduate School of Cornell University, and as candidates for an advanced degree are subject to all the regulations laid down by the Faculty of the Graduate School. The members of the Medical College who give instruction to graduate students constitute Group F of the Faculty of the Graduate School, and the Chairman of this Group, Professor C. R. Stockard, is a member of the General Committee of this Faculty. Graduate students in New York City are advised to acquaint themselves with the rules and regulations of the Graduate School as set down in the Announcement, and to correspond directly with the Office of the Dean of the Graduate School in Ithaca. Professor Stockard, as Chairman of Group F, will be willing to advise with graduate students in New

York in regard to the details of their graduate work and plans for candidacy. Copies of the Announcement and various official forms used by the Graduate School may also be obtained from the Director's office at the Medical College.

#### **FEES**

A Matriculation Fee of \$10 is required of every student upon entrance into the University. It must be paid at the time of registration.

A Tuition Fee of \$75 for the academic year is to be paid by all

students registered in the Graduate School.

An Administration Fee of \$25 is to be paid by all students registered in the Graduate School.

A Graduation Fee of \$20 is required, at least ten days before the degree is to be conferred, of every candidate for an advanced degree. The Fee will be returned if the degree is not conferred.

Certain classes of students are exempt from payment of the tuition

fee. They are:

(1) Graduate students holding appointments as University Fellows or Graduate Scholars.

(2) Graduate students holding appointments as assistants and instructors and having their major studies in the college or line of work in which they are instructing, are exempt only from the payment of tuition fees in the department in which they are employed to give instruction; members of the instructing staff who take work for which they must pay tuition are required to pay in proportion to the amount of work for which they are registered.

# FACULTY OF MEDICINE AT ITHACA

LIVINGSTON FARRAND, A.M., M.D., LL.D., President.

ABRAM TUCKER KERR, B.S., M.D., Secretary of the Medical College at Ithaca, Professor of Anatomy.

SIMON HENRY GAGE, B.S., Professor of Histology and Embryology, Emeritus.

Benjamin Freeman Kingsbury, Ph.D., M.D., Professor of Histology and Embryology.

JAMES BATCHELLOR SUMNER, A.M., Ph.D., Professor of Biochemistry.

HOWARD SCOTT LIDDELL, M.A., PH.D., Professor of Physiology.

James Wencelas Papez, A.B., M.D., Assistant Professor of Anatomy and Neurology.

HOWARD BERNHARDT ADELMANN, A.M., Ph.D., Assistant Professor of Histology and Embryology.

JOSEPH ALMA DYE, A.B., Ph.D., Assistant Professor of Physiology.

GEORGE HARRISON MAUGHAN, A.M., Ph.D., Instructor in Physiology.

Russell Milliser, A.B., Instructor in Anatomy.

DAVID BIRNEY HAND, A.B., Instructor in Biochemistry.

JOSEPH STANLEY KIRK, B.S., Instructor in Biochemistry.

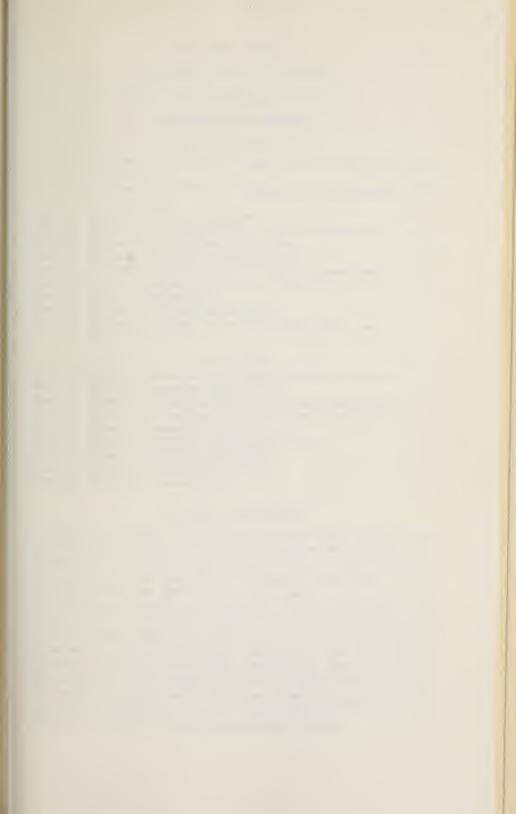
O. D. Anderson, B.S., Ph.D., Instructor in Physiology.

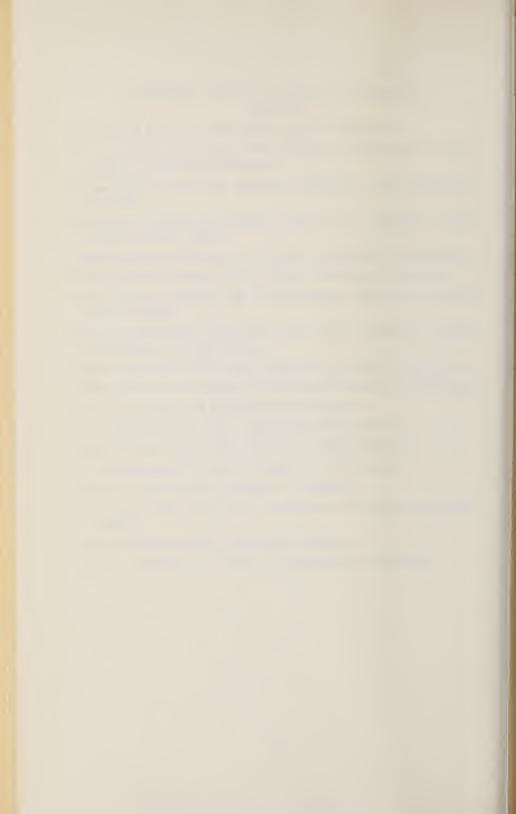
ADRIAN F. REED, A.B., Assistant in Anatomy.

MICHAEL S. Brody, B.S., M.S., Assistant in Histology and Embryology.

FRED A. METTLER, AB., Assistant in Anatomy.

NORMAN S. MOORE, A.B., M.D., Demonstrator of Anatomy.





# INSTRUCTION AT ITHACA

# DURING THE FIRST YEAR OF THE COURSE

## CALENDAR FOR ITHACA

# FIRST TERM, 1930-1931

- Monday and Tuesday-Registration and assignment of New Sept. 22, 23 Students.
- Tuesday and Wednesday—Registration and assignment of Old Sept. 23, 24 Students.
- Thursday—Instruction begins. Sept. 25
- Oct. 17 Friday—Last day for payment of tuition for first term.
- Nov. 26 Wednesday—Instruction ends at 6 P.M.
- Monday—Instruction resumed at 8 A.M. Dec. 1
- Dec. 20 Saturday—Instruction ends at I P.M. (Christmas recess).
- Monday—Instruction resumed at 8 A.M. Jan. 5
- Jan. 11 Sunday—Founder's Day.
- Jan. 26 Monday—Term examinations begin.
- Feb. 4 Wednesday—Term examinations end; first term closes.
- Feb. 5 Thursday-Holiday.

## SECOND TERM

- Feb. 6 Friday—Registration of all students for the second term.
- Feb. 9 Monday—Instruction begins at 8 A.M.
- Mar. 2 Monday—Last day for payment of tuition for second term.
- Mar. 28 Saturday—Instruction ends at I P.M. (Spring recess).
- Apr. 6 Monday—Instruction resumed at 8 A.M.
- May 23 Saturday—(Holiday.) Spring and Navy Day.
- June 1 Monday—Final examinations begin.
  June 9 Tuesday—Final examinations end.
- Monday-Commencement. June 15

### GENERAL STATEMENT

From its foundation Cornell University has offered special courses for students preparing for the study of Medicine; first in the Natural History Course, and later also in a special two-year Medical Preparatory Course. In 1898 the Medical College was established in New York City with a four years' course. At the same time the work of the first two years was duplicated at the University in Ithaca, since many of the fundamental scientific subjects of which this part of the course mainly consists were already provided for in the long-established departments of Botany, Zoology, Comparative Anatomy, Physics, Chemistry, Physiology, Histology, Embryology, and Bacteriology. The courses in these departments were modified where necessary and additional courses were added so as to make the work at Ithaca equivalent to the first two years in New York City. In 1908, the work of the second year was discontinued at Ithaca.

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OTHER COLLEGES OF THE UNIVERSITY.—Among the facilities of the University of special value to the Medical College may be mentioned the museums of Vertebrate and Invertebrate Zoology (including Entomology and Comparative Anatomy), of Agriculture, of Botany, of Geology, and of Veterinary Medicine. The University Library with its 742,723 volumes and pamphlets, and over 2,000 current periodicals and transactions, is as freely open to medical students as to other University students.

STIMSON HALL.—This is a modern and thoroughly equipped laboratory building erected for the Medical College at Ithaca in 1902. It was made possible through the generosity of the late Dean Sage of Albany and named at his desire Stimson Hall in recognition of the services rendered by Dr. Lewis A. Stimson toward the establishment of the Medical College. The building was especially designed for teaching and research in anatomy, histology, embryology, and physiology. The building is constructed of Ohio sandstone. The general form is that of an E, 157 feet long and 50 feet wide with wings 40 feet square.

In the cellar are sound-proof conditioned reflex rooms, the cold-

storage, embalming, cremating rooms and storerooms.

In the basement are the ventilating and cold-storage machinery, a large lecture room, research rooms, and an advanced laboratory for histology, besides the lower part of the large amphitheatre. Here also is located the operating room for the Department of Physiology.

On the first floor are located the coat rooms for men and women, College office, library, reading room, faculty room, histology and embryology research laboratory, general laboratory for experimental physiology, demonstration, metabolism and dark room for physiology,

and the upper part of the large amphitheatre.

On the second floor is the Department of Histology and Embryology with a large general laboratory, research laboratory, preparation rooms, and private laboratories for the instructors. Upon this floor also is located the Department of Physiology with a large general laboratory for biochemistry, research laboratories for biochemistry, a research laboratory for experimental physiology, an incubator room, repair shop and private laboratories for the instructors.

The third floor consists of the general and special dissecting rooms for gross anatomy and neurology, study rooms, and amphitheatre,

besides rooms for the instructors.

The attic is utilized for photography, macerating skeletons, and for storage.

The air in the building is constantly changed by forced ventilation.

The lighting is especially good in all the rooms.

In the court behind the building is a house for alcohol and inflammables and provision for experimental animals, including a small animal house. Additional animal houses and experimental laboratories are located at some distance from the medical building on the Physiology Field Station.

The VanCleef Memorial Library.—This library, endowed by Mr. Mynderse VanCleef in honor of his brother, Dr. Charles VanCleef, is located in Stimson Hall and supplements the extensive facilities of the University Library by a steadily growing collection of reference works and periodicals of importance for the work of instruction and research conducted in Stimson Hall. The library room is lighted by indirect overhead light, and the reading desks are provided with daylite lamp fixtures.

Experimental Field Station.—An important adjunct to the Department of Physiology is an Experimental Field Station which consists of nine acres situated in the open country about two miles from the Medical College. In this fenced field a barn for the accommodation of large animals such as sheep and goats, and proper houses with runs for small animals have been provided. In such a station animals under observation in feeding and nutrition experiments, for example, may be kept under ideal conditions for long periods of time. A laboratory equipped for the study of conditioned reflexes has been constructed in which it is possible, due to the quiet environment, to provide an experimental room practically sound proof. This is essential for success in the investigation of conditioned reflexes. Communication between the station and the laboratory is maintained by a motor truck belonging to the department.

The Sarah Manning Sage Research Fund.—As a recognition of the importance of the research side of university work, and as a timely and generous gift, there came in 1916 a bequest of \$50,000 by the will of Sarah Manning Sage, widow of Dean Sage, the donor of Stimson Hall. The income of this sum, or in the discretion of the University the principal also, shall be used to promote the advancement of medical science by the prosecution of research in the Cornell University Medical College at Ithaca, in connection with any and all subjects at any time embraced in the curriculum.

# PLAN OF INSTRUCTION

#### ANATOMY

ABRAM T. KERR, B.S., M.D., Professor of Anatomy.

James W. Papez, A.B., M.D., Assistant Professor of Anatomy and Neurology.

RUSSELL MILLISER, A.B., Instructor. ADRIAN F. REED, A.B., Assistant.

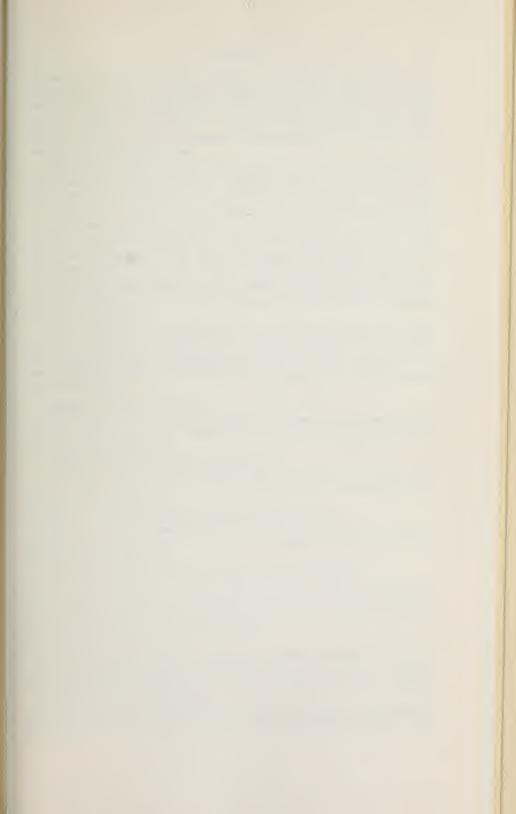
FRED A. METTLER, A.B., Assistant.

NORMAN S. MOORE, A.M., M.D., Demonstrator.

The courses in anatomy are designed to provide a comprehensive

and detailed study of the structure of the human body.

The work in gross anatomy is mostly concentrated in the first term of the first year. The laboratory is open from eight to five on week days, except Saturday. Twenty-five hours a week are allowed for the required work in the first term and four hours a week in the second term. Students who have additional hours free may devote more time to the subject. The work consists mainly of dissection followed by recitation on the part dissected. For this work there is an ample supply of dissecting material well embalmed and kept in cold storage ready for use. Each student is required to do a clean and careful dissection of a lateral half of the body. The regional method of dissection is followed. The student is furnished a systematic laboratory outline so arranged where possible that the structures in each region can be studied together as a topographic, functional or surgical area. It is realized that no one method or point of view is sufficient or applicable to every region. The purpose throughout is to make the student find and identify every structure, to appreciate its functional significance, its relations and its peculiar characteristics, to assemble details into general concepts, to visualize and interpret every region and organ. The aim is to direct the student to work methodically, to observe carefully and to think clearly and independently. He is encouraged to make careful notes and as many drawings as time permits. Where feasible, he is taught to compare his findings on the cadaver with conditions in the living body. An x-ray outfit in the department makes it possible in many regions to compare the x-ray picture from the cadaver with the findings in the dissection. A complete disarticulated skeleton is loaned to each student so that the bones may be available for study when encountered in course of dissection. In addition the department is well equipped with models, cross sections, and special dissections for study and demonstration. For study of the finer structure of the organs hand lenses and several binocular dissecting microscopes are provided in the laboratory. A student library containing





atlases and some of the more important anatomical monographs is in connection with the laboratory. Besides the usual regional recitation on the dissected part, demonstration conferences are held about three times a week with the class as a whole or with smaller groups. Occasional lectures are given on matters that cannot be made clear by dissection and demonstrations.

The work in the anatomy of the nervous system and sense organs is given during the second term. It consists mainly of laboratory work with frequent conferences and recitations. A topographic study and dissection of the organ or part precedes or accompanies its microscopic study. Special attention is given to the sense organs, nerves, nuclei, reflex connections, conduction tracts and cortical areas that enter into the formation of the more important functional systems. In connection with each organ or part, its development and comparative morphology is considered. For this work an ample supply of human brains, brains of lower mammals, Weigert sections, and other preparations are available.

The department is well equipped to provide facilities for those properly qualified to undertake advanced and research work. Students with special ability or training are permitted to do more than the required work. Where time permits they are encouraged to do advanced or research work.

I. Anatomy of the Head and Neck.

First term. Credit, 4 hours, 24 actual hours a week for 6 or more weeks. Professors Kerr and Papez, instructors and assistants. Laboratory work, dissection, and conferences.

2. Anatomy of the Thoracic Walls and Viscera.

First term. Credit, I hour, 24 actual hours a week for 2 or more weeks. Professors Kerr and Papaz, instructors and assistants. Laboratory work, dissection, and conferences.

3. Anatomy of the Abdominal and Pelvic Walls and Viscera.

First term. Credit, 4 hours, 24 actual hours a week for 6 or more weeks. Professors Kerr and Papez, instructors and assistants. Laboratory work, dissection, and conferences.

5. The Nervous System, Anatomy, Histology, and Systematization.

Second term. Credit, 3 hours, Assistant Professor Papez and instructors. Eight hours a week laboratory with laboratory demonstrations, conferences and recitations. Dissection of the spinal cord and brain. Microscopic structure and development of the nervous system.

6. Anatomy of the Living Body.

First term. Credit, 2 hours, 3 actual hours a week. Professor Kerr. Interpretation of dissecting room material by means of the living body, frozen sections, and special preparations. A review of the work of Courses 1, 2, and 3. 7. Anatomy of the Upper Extremity.

First term. Credit, 2 hours, 24 hours a week for 2 or more weeks. Professors Kerr and Papez, instructors and assistants. Laboratory work, dissection, and

conferences.

8. Anatomy of the Lower Extremity.

Second term. Credit, 2 hours, 4 hours a week for 16 weeks. Professor Kerrs and Papez, instructors and assistants. Laboratory work, dissection, and conferences.

9. Topographical Anatomy.

First and second terms. Credit, 2 to 5 hours. Elective. Prerequisite, anatomy courses 1, 2, 3, 7, or 8. The detailed dissection and study of any region. Professor Kerr.

12. Research in Anatomy and Neurology.

First and second terms. Professors Kerr and Papez. Advanced and research work in the laboratories. Open only to those who have taken the necessary preliminary courses, and are properly qualified.

## HISTOLOGY AND EMBRYOLOGY

BENJAMIN F. KINGSBURY, Ph.D., M.D., Professor. HOWARD B. ADELMANN, A.M., Ph.D., Assistant Professor. VIRGIL MASON, A.B., Assistant.

MICHAEL S. BRODY, B.S., M.S., Assistant.

As indicated by the following courses, this department offers elementary and advanced instruction in the theory and use of the microscope, and its accessories, in histology, and embryology; and opportunities for research in all of these subjects.

The material equipment consists of a good supply of modern microscopes, while camera-lucidas, polariscopes, micro-spectroscopes, photo-micrographic cameras, microtomes and other special apparatus such as dark-field illuminators are in sufficient numbers to give each student opportunity for personally learning to use them, and for applying them to any special study in which they are called for. Two projection microscopes are available for class demonstrations and for making the drawings used in reconstruction.

The rooms for the use of the department are on the second floor of Stimson Hall. They are almost perfectly lighted and consist of a large general laboratory, an advanced laboratory, a preparation room, department office, and five private laboratories for the instructing staff, where also special demonstrations of difficult subjects are given to

small groups of students.

The collection of material and microscopic series of human embryology, contributed mainly by graduates of the College, is steadily growing. Every encouragement is given for the fullest utilization of

the opportunities afforded by the department.

The work of the department consists of practical laboratory work, supplemented by lectures, conferences, and demonstrations. The work required of students of medicine is given in Course 10. For those who have already had elsewhere satisfactory work in histology, elective work may be taken in Courses 107 and 108. Courses open to students in the College of Arts and Sciences and Veterinary Medicine are described in the announcements of these colleges.

# COURSES REQUIRED OF STUDENTS OF MEDICINE

10. Histology.

First term. Credit, 8 hours. Professors Kingsbury, Adelmann and assistant. Required of first-year students of medicine. Four laboratory periods and four lectures each week. The work includes (a) The fundamentals of human development; (b) The histology of the tissues and organs (except the nervous system); (c) The main facts of histogenesis and the development of the organs (except the nervous system). It is highly advantageous that the course be preceded by a course in embryology (see Courses of Instruction of the College of Arts and Sciences, Course 104).

#### ADVANCED AND ELECTIVE COURSES

107. Advanced Work in Histology and Embryology.

First and second terms. Professor Kingsbury and Assistant Professor Adelmann. Laboratory work, eight or more actual hours a week, with Seminary (Course 108).

This course is designed for those preparing theses for baccalaureate or advanced degrees, and for those wishing to undertake special investigations

in histology and embryology.

Course 107 is open to those who have had Course 10, or its equivalent. A good reading knowledge of French and German is indispensable for the most successful work in this course. It is suggested that those who intend to take this course confer with the head of the department as early as possible, so that the work may be planned to the best advantage.

108. Seminary.

First and second terms. One hour each week at an hour to be arranged. For the discussion of current literature and the presentation of original work by the members of the department staff and those doing advanced work in the department. It may be taken in connection with Course 107.

#### DEPARTMENT OF PHYSIOLOGY AND BIOCHEMISTRY

James B. Sumner, A.M., Ph.D., Professor of Biochemistry. Howard S. Liddell, A.M., Ph.D., Professor of Physiology. Joseph A. Dye, A.B., Ph.D., Assistant Professor of Physiology. George H. Maughan, A.M., Ph.D., Instructor in Physiology. O. D. Anderson, B.S., Ph.D., Instructor in Physiology. David B. Hand, A.B., Instructor in Biochemistry. J. Stanley Kirk, B.S., Instructor in Biochemistry.

#### **PHYSIOLOGY**

This subject is taught in the second term of the first year of the medical curriculum. It is the aim of the department to give the students a thorough training in the fundamentals of the Science of Physiology and an effort is made to strike the proper balance between the study of theoretical principles in the lecture room and the practical application of these in the laboratory.

II4 Cornell

Nine hours a week are devoted to practical exercises, special attention being given to experimental methods which are likely to be

of importance in the study of clinical medicine.

In the laboratory, from year to year, less and less time is taken up with frog physiology and more and more time devoted to a practical study of mammalian functions. This is made possible by the fact that the department now possesses six large Brodie type kymographs of recent pattern for the exclusive use of medical students.

The following courses are offered:

31. Physiology of Muscle and Nerve; Central and Automatic Nervous Systems; Special Senses.

Second term. Credit, 4 hours. Professor Liddell and assistants. Four lectures or recitations and three laboratory periods weekly for eight weeks.

34. Physiology of Digestion and Secretion; Absorption; Excretion; Heat Production and Its Regulation; and Functions of the Endocrine Glands.

Second term. Credit, 4 hours. Assistant Professor Dye, Instructor Maughan and assistant. Four lectures or recitations and three laboratory periods weekly for eight weeks, supplemented by demonstrations, conferences and written reviews. In the Laboratory, the students will gain practical experience by making animal preparations, demonstrating and studying the physiological mechanisms of the mammalian body.

308. Advanced Work and Research in Physiology.

First and second terms. Credit, 2 or more hours. Assistant Professor Dye. Prerequisite or parallel, courses 31 and 34 or their equivalents. This course is designed for undergraduate students who are especially interested in physiological problems and wish to undertake special investigations in this field in preparation for further work toward advanced degrees.

310. Seminary in Physiology.

Second term. Credit, I hour. For graduate students and others properly qualified. Hour to be arranged. Members of the staff. Reports on recent advances in physiology.

#### BIOCHEMISTRY

In this section the student is taught the chemistry of the tissues, fluids, secretions, and excretions of the human body; the compositions of food-stuffs, and the phenomena of their digestion, absorption, and assimilation; the rôle of enzymes in the animal economy; the principles of nutrition; and the leading facts of general and special metabolism. Groups of organic compounds of especial biological importance will be discussed emphasizing particularly the carbohydrates, purins, amino acids, and fats. The fundamental properties of electrolytes and colloids and the phenomena of osmosis and dialysis will be considered in lecture room and laboratory. Instruction is given in the use of analytical methods for the examination of biological products, both normal and pathological. Those methods are principally considered which have found an application in scientific medicine, and spe-

cial attention is devoted to the quantitative analysis of the gastric contents, blood, and urine. Each student completes the course by

performing a metabolism experiment upon himself.

The bulk of the instruction is given in the laboratory. As occasion arises, the student's individual work there is supplemented by experimental demonstrations; while by means of lectures and recitations it is sought to co-ordinate the whole, and to expound the theoretical aspects of the subject.

The following courses are offered:

15. General Biochemistry.

Second term. Credit, 9 hours. Five lectures or recitations and four three-hour laboratory periods weekly; supplemented by demonstrations, conferences and written reviews. Professor Sumner, Instructors Hand and Kirk. Required of first year students of medicine.

17. Special Chapters in Biochemistry.

First term. Credit, 1 hour. Professor Sumner. One lecture weekly on some selected province of biological chemistry. Hour to be arranged. This is an elective course for advanced students or graduates.

320. Advanced and Research Work in Biochemistry.

First and second terms. Professor Sumner. The laboratory is open daily to all qualified persons for advanced instruction or the prosecution of research. Courses are arranged to suit the training and requirements of the individual student.

# SUMMARIZED STATEMENT

In this schedule the counts or University hours are given on the following basis: One recitation or lecture weekly for one term or half year gives a credit of one; for laboratory work it requires two and one-half to three actual hours weekly for a term or half year to secure a credit of one.

# REQUIRED COURSES

#### FIRST TERM

I. Anatomy of the Head and Neck.

Credit, 4 hours, 24 actual hours a week for 6 weeks. Professors Kerr and Papez, instructors and assistants. Laboratory work, dissection, and conferences.

2. Anatomy of the Thoracic Walls and Viscera.

Credit, I hour, 24 actual hours a week for 2 weeks. Professors Kerr and Papez, instructors and assistants. Laboratory work, dissection, and conferences.

3. Anatomy of the Abdominal and Pelvic Walls and Viscera.

Credit, 4 hours, 24 actual hours a week for 6 weeks. Professors Kerr and Papez, instructors and assistants. Laboratory work, dissection, and conferences.

6. Anatomy of the Living Body.

Credit, 2 hours, 3 actual hours a week. Professor Kerr.

7. Anatomy of the Upper Extremity.

Credit, 2 hours, 24 hours a week for 2 or more weeks. Professors Kerr and Papez and assistants.

10. Histology.

Credit, 8 hours. Professors Kingsbury, Adelmann, instructors and assistant. Four laboratory periods and four lectures each week.

#### SECOND TERM

31. Physiology and Muscle and Nerve; Central and Automatic Nervous Systems; Special Senses.

Second term. Credit, 4 hours. Professor Liddell and assistants. Four lectures or recitations and three laboratory periods, weekly for eight weeks.

34. Physiology of Digestion and Secretion; Absorption; Excretion; Heat Produc-

tions and Its Regulation; Functions of the Endocrine Glands.

Second term. Credit, 4 hours. Four lectures or recitations and three laboratory periods weekly for eight weeks, supplemented by demonstrations, conferences and written reviews. In the laboratory, the students will gain practical experience by making animal preparations, demonstrating and studying the physiological mechanisms of the mammalian body.

15. General Biochemistry.

Credit, 9 hours. Five lectures or recitations and four three-hour laboratory periods weekly, supplemented by demonstrations, conferences, and written reviews. Professor Sumner and instructors.

5. The Nervous System Anatomy, Histology, and Development.

Credit, 3 hours. Assistant Professor Papez and instructors. Eight actual hours a week. Dissection of the spinal cord and brain. Microscopic structure of the nervous system and organs of special sense.

8. Anatomy of the Lower Extremity.

Credit, 2 hours, 4 actual hours a week. Professors Kerr and Papez and assistants.

FIRST TE	ERM		Actual
	No. of Course	University Hours	Hours Weekly
Anatomy	1, 2, 3, 7	11	24
Anatomy	6	2	3 16
Histology	10	8	16
		_	_
		21	43
SECOND T	ERM		
Anatomy	8	2	4
Physiology	31	4	10
Physiology	34	4 \$	13
Nervous System	5	3	8
Biochemistry	15	9	17
		_	-
		22	42

#### GENERAL INFORMATION

# REQUIREMENTS FOR ADMISSION

The requirements for admission are identical with those of the Medical College at New York City (see page 38).

#### RESIDENCE AND REGISTRATION

The college year is nine months long, extending from the last of September till about the middle of June, and is divided into two nearly equal terms. (For exact dates, see calendar on page 107.)

No credit is given for work done in absentia. For leave of absence during the session, application should be made to the Secretary.

At the beginning of the term students must register with the University Registrar, in Morrill Hall. After registration with the University Registrar, they must register with the Secretary of the Medical College, in Stimson Hall.

#### EXAMINATIONS AND ADVANCEMENT

Students are advanced in course from one year to the next upon passing examinations upon the work of that year. The work of each year is considered final of itself. There is no unnecessary repetition of subjects taught from year to year. According to the usage of the other colleges, the University student found to be markedly deficient will be dropped from the College at the end of the term in which such deficiency is shown. In the case of a student so dropped, an application for re-admission will not be considered at all until after the expiration of one term.

Upon the completion of the year in Ithaca, a transcript of the record of each student, together with a statement that such student is recommended for admission to the second year class is transmitted by the Faculty at Ithaca to the Faculty of the Medical College in New York City. As a student is not advanced from one year to another in the New York division until all the work of the year is completed, a student from Ithaca cannot enter the second-year class in New York until the entire schedule of the first year has been successfully completed. For removing any conditions, examinations are held at the beginning of the fall term, both in Ithaca and in New York City. The student is at liberty to take these examinations in Ithaca or in New York City. The examination on a subject in either place is final for that year. That is, the student will not be permitted to try an examination on a subject in Ithaca, and take advantage of the later date for the examination in New York to have a second examination on the same subject in the same autumn.

#### CHARGES FOR INSTRUCTION

#### FIRST YEAR

Matriculation.	 	 	 		\$10.00
Tuition	 	 	 		500.00
				-	
					SCIO 00

Willard Straight and Infirmary fees are paid by medical students as well as by all other students.

All tuition and other fees may be changed or increased by the Trustees to take effect at any time without previous notice.

Applications for registration in the Medical College should be made by February 1, and a deposit of \$100 is required if accepted.

Any prospective undergraduate student intending to register in the Medical College at Ithaca for the first term of the academic year must apply for registration not later than March 1 of that year. An application received after February 1 may be accepted if, in the judgment of the Faculty there is adequate provision for the student's instruction.

An advance of \$100 on account of tuition is required of each applicant on acceptance for admission, payable normally within two weeks of notification, and is not returnable.

#### RESIDENTIAL HALLS

The University has eight residential halls for men students situated on the Campus and furnishing accommodations for about 600 students. For particulars address The Manager of Residential Halls, Morrill Hall, Ithaca, N. Y. There are, also, many private boarding and rooming houses near the University Campus. In these the cost of board and furnished room, with heat and light, varies from \$10 to \$15 a week. By the formation of clubs, students are sometimes able to reduce their expenses for room and board. Cafeterias are maintained by the University in Cascadilla Hall, in Willard Straight Hall, and one by the College of Agriculture in the Home Economics Building, where meals may be obtained at reasonable prices.

Before engaging rooms, students should carefully examine sanitary conditions and should particularly insist on satisfactory and sufficient fire escapes. The University publishes and distributes a list of approved rooming houses. This list is ready for distribution August 15. New students are advised to come to Ithaca a few days in advance of the beginning of the University duties in order that they may have ample time to secure room and board before the opening of the academic year. The Freshman Advisory Committee offers its assistance to new students in the selection of rooming and boarding houses.

The residential halls for women students are Sage College, Prudence Risley Hall and Balch Hall. In these buildings, which are exclusively





for women students, the total cost of board, laundry and rent of furnished rooms, with heat and light is \$560 a year. The halls are heated by steam, and lighted by electricity. The Dean of Women has jurisdiction over all women students in the University, and women students are not permitted to board and lodge outside of the halls for women except in houses approved by the Dean, and subject to her direction. Prospective women students should write to the Dean of Women for information concerning any matters in which they may need assistance. Dormitory facilities for women are inadequate, and prospective students desiring such accommodations are urged to make early application. Inquiries in regard to board and rooms in the women's halls should be addressed to The Manager of Residential Halls, Morrill Hall, Ithaca, N. Y.

# CORNELL UNIVERSITY MEDICAL COLLEGE

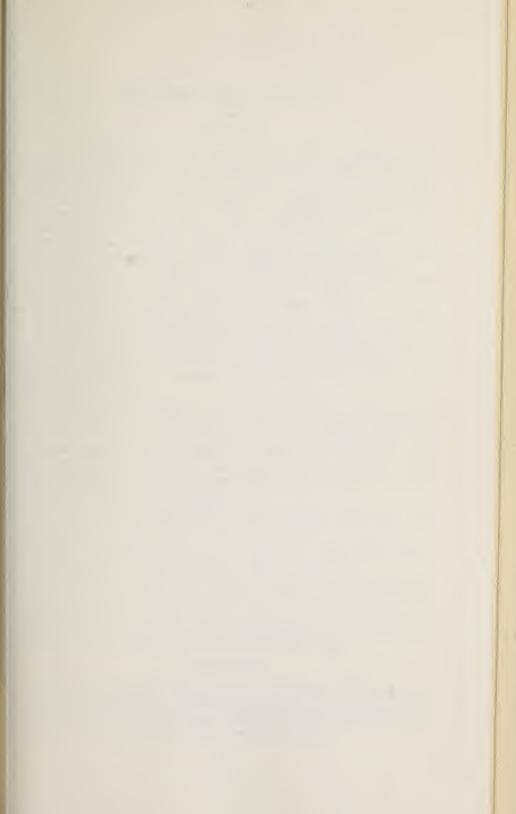
ITHACA, N. Y.

# FIRST YEAR—SESSION 1930-1931—FIRST TERM

	8	9	10	11	11.30	I	2	3
Mon.	Anatomy L.	Histol. Histology Anatomy						
Tues.		Anatomy						
Wed.	Anatomy L.	Histol. L.		Histology		Anatomy		
Thurs.			Anatomy			Anatomy		
Fri.	Anatomy L.	Histol. L.		Histology			Anatomy	
Sat.	Histol. L.		Histo	ology				

# FIRST YEAR—SESSION 1930-1931—SECOND TERM

	8	9	10	11	11.30	I	2	3
Mon.		ANAT	OMY			N	ervous Syste	·m
Tues.	Biochem. L.		Phy	siology			Physiology	
Wed.	Physiol. L.	Biochem. L.		Nervous Sy	stem		Biochemistry	,
Thurs.	Physiol.	Biochem. L.		Physiolog	у	N	ervous Syste	m
Fri.	Physiol. L.	Biochem. L.	Biochemistry			1	Biochemistry	
Sat.	Physiol.	Biochem. L.		Biochemis	try			1





# GRADUATE WORK AT ITHACA

### **ADMISSION**

The Graduate School has exclusive control of all graduate work carried on in the University. Graduates of the following colleges of Cornell University, namely, the College of Arts and Sciences, the College of Architecture, the College of Engineering, the Medical College, the New York State College of Agriculture, the New York State College of Home Economics, the Law School and the New York State Veterinary College, and also graduates of other institutions in which the requirements for the first degree are substantially equivalent, are eligible for admission to the Graduate School. In other cases studies pursued after graduation, and experience gained by professional work or otherwise, are taken into consideration in deciding whether the candidate's preparation as a whole is such as to justify his admission to the Graduate School. Graduates of colleges other than those of Cornell University may be admitted to the Graduate School, but not to candidacy for an advanced degree, if their training is regarded as less than one year short of that required for the first degree at Cornell University.

In order to be admitted to the Graduate School, a student must furnish evidence that he has already received a first degree, by presenting either a diploma or a statement from some official source. The simplest procedure will ordinarily be to submit an official statement from the registrar or dean that the degree has been conferred. In the case of graduates of Cornell University this is not necessary, since the

records are conveniently accessible.

To avoid delays at the beginning of the academic year, those who desire to enter the Graduate School are advised to make application for admission, either in person or by letter, in the preceding spring or summer. Correspondence should be addressed to the Dean of the

Graduate School, Cornell University, Ithaca, New York.

For details in regard to the selection of major and minor subjects, special committees in charge of the work of each candidate for an advanced degree, fees, time required, thesis, and special conditions to be fulfilled by each candidate for an advanced degree, reference should be made to the Announcement of the Graduate School.

### **FACILITIES**

The facilities of the Departments of Anatomy, Histology and Embryology, Physiology and Biochemistry, have been outlined under the description of each department. These are equally available for the use of the graduate students as for medical students.

## FELLOWSHIPS AND GRADUATE SCHOLARSHIPS

Among the twenty-four fellowships and eighteen scholarships offered annually to students in the Graduate School, the following are of particular interest to students continuing work in biological sciences: THE SCHUYLER FELLOWSHIP IN ANIMAL BIOLOGY (annual value of

\$400 and free tuition in the Graduate School).

THE GRADUATE SCHOLARSHIP IN ANIMAL BIOLOGY (annual value of \$200 and free tuition in the Graduate School).

### THE COMBINED A.B. AND M.D. DEGREES

The Medical College advises students to complete, whenever feasible, the full four-year A.B. Course before applying for admission to this College. It is possible, however, to be admitted to the Medical College under Section II of the entrance requirements. This is to provide for those students who, by specially directed or especially proficient work, accomplish the essential requirements for the Arts degree during three years of college residence. No students are admitted under this classification unless their college faculty will permit them to substitute the first year in the Cornell University Medical College for the fourth year of their college course, and no student is admitted to the second year in the Medical College without the Bachelor's degree obtained after at least three years of undergraduate college work.

The first year in the Medical Course which may be taken in place of the fourth year of the arts work may be pursued either in Ithaca or New York City. If all the work of this year is completed satisfactorily the student receives the degree of A.B. or its equivalent, and is permitted to take the last three years of the medical work. These are taken entirely in the Cornell University Medical College in New York City.

For the convenience of college students preparing for medicine, a schedule of the courses in the College of Arts and Sciences of Cornell University, in Physics, Chemistry, and Biology, which will satisfy the requirements for admission to the Medical College, is given below. If a student is taking four years in an arts college these courses may be taken later in the course than indicated. It is important that the order given in the outline should, in the main, be followed, as certain of these courses are prerequisite for other prescribed courses. In addition to these courses required for admission to the Medical College, the student will take all courses in English; Foreign Language; Philosophy and Psychology; History; Mathematics; Economics and Government that are prescribed by the College of Arts and Sciences. It is advised that all these underclass requirements be completed before the beginning of the junior year.

Outline of the courses which the Medical College requires of its

applicants for admission, and planned for the student who expects to finish his arts courses in three years.

173	37			Α
FIRST	1	EAR	IN	ARTS

	Course No.	Hours	2nd Term. Hours Credit.
Animal Biology (Introductory Zoology)	1 vo.	3	
Chemistry (Introductory Inorganic)	101	3 -	3
			3
Chemistry (Introductory Inorganic)	105		3
Second Year in	Arts	•	
Animal Biology (Comparative Anatomy and			
morphology of vertebrates)	II	3	3
Chemistry (Introductory Qualitative Anal-		3	J
ysis)	210	3	
Chemistry (Introductory Quantitative		3	
Analysis)	225		2
	384	2	3
Physics (Introductory Experimental)	304	3	3
THIRD YEAR IN AR	TS		
Chemistry (Elementary Organic)	375	6	
Animal Biology (Histology and Histo-	373		
genesis of the tissues)	IOI	4	
Animal Biology (Vertebrate Embryology).	101	4	~
	104		5
Physics (Introductory Physical Experi-			
ments)	55	3	

It is desirable that included in, or in addition to the modern foreign language required for admission to the Medical College, students should obtain a reading knowledge of French and German.

Some of the additional courses suggested for election according to

the needs or desires of each individual student are:

In the group of Animal Biology, courses: 10—Cytology; 14—Genetics; 102—Histology and development of the organs; 105—Histology and Histological methods; 221—Structure of the Human Body; 222—Anatomical Methods; 303—Elementary Human Physiology; in Economics, in addition to the Elementary Course, courses 50, 51 and 54—Introduction to Social Science. Also courses in Psychology and additional courses in English and Public Speaking where these latter are needed.

# GRADUATES 1930

# DOCTORS OF MEDICINE, JUNE 12, 1930

Alfred Silas Ambler, A.B. St. Luke's Hospital Rowland Thompson Bellows, Ph.B. Duke Hospital, Durham, N. C. Richard Davison Bullard, A.B. Graduate Hospital, University of Pennsylvania, Philadelphia, Pa. Herman John Christensen, B.S. Highland Hospital, Rochester, N. Y. Edward Craig Coats, B.S. St. Vincent's Hospital Peter John DeBell, A.B. St. Luke's Hospital Arthur John Dick, A.B. French Hospital Benjamin Victor diIorio, A.B. Bellevue Hospital Henry Shankland Dunning, A.B. New York Hospital John Aloysius Fallon, A.B. New York Hospital Ben Bernard Gelfand, A.B. Sol Roland Goldstein, A.B. Rochester General Hospital, Rochester, N. Y. Lillian Hedvig Hellstrom, A.B. New York Infirmary for Women and Children James Francis Hickey, A.B. Lenox Hill Hospital George Fred Hilker, B.S. Jersey City General Hospital, Jersey City, N. J. Mabel Clare Huschka, B.S. United Hospital, Port Chester, N. Y. Alfred Anthony Imperato, B.S., M.A. Mary Immaculate Hospital, Queens Harry Inkster, B.S. Lenox Hill Hospital Margaret Alice Kennard, A.B. Strong Memorial Hospital, Rochester, N. Y. Clifton Springs Sanatorium, Clifton Springs, N. Y. Marguerite Kingsbury, A.B. Lebanon Hospital, Bronx, N. Y. Nathan Troy Kwit, A.B. William August Lange, B.S., A.M. Methodist Episcopal Hospital, Brooklyn Hannah Virginia Langworthy, B.S., M.S. Bellevue Hospital Morris Boynton Lerned, A.B. Henry Ford Hospital, Detroit, Mich. Edwin Rayner Levine, B.S. Bellevue Hospital Mack Lipkin, B.S. N. Y. Post-Graduate Hospital Edmund Vincent Lynch, B.S. St. Vincent's Hospital Grasslands Hospital, Valhalla, N. Y. Robert Roden Meredith McLaughlin, A.B. Charles Lowell Medd, B.S. Methodist Episcopal Hospital, Brooklyn Laurence Miscall, A.B. Bellevue Hospital Edward Joseph Moress, A.B. Rochester General Hospital, Rochester, N. Y. John Gerard Muccigrosso, A.B. Fordham Hospital, Bronx Charles George Murdock, Jr., A.B. Syracuse Memorial Hospital, Syracuse, N. Y. Hollywood Hospital, Los Angeles, Calif. Arcadio Tigrio Obando, A.B. New York City Hospital Irving Ostrow, A.B. Helen Haslett Owen, A.B. New York State Tuberculosis Hospital, Raybrook, N. Y. Brooklyn Hospital, Brooklyn Warren James Pashley, A.B. Mildred Pellens, A.B. Madeline Penke, A.B. New York Hospital Lincoln Hospital Louis Penn, A.B. Paul Lange Phillips, A.B. United Hospital, Port Chester, N. Y. Paul William Preu, B.S. Orange Memorial Hospital, Orange, N. J. Solomon Rauch, A.B. The Jewish Hospital, Brooklyn Lenox Hill Hospital

New York Hospital

Montefiore Hospital

Long Island College Hospital, Brooklyn

Bellevue Hospital

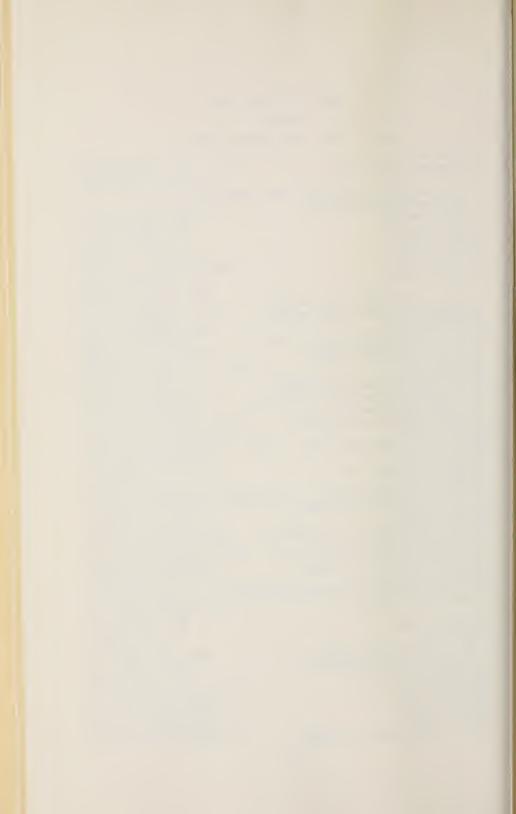
Walter Rautenstrauch, Jr., A.B.

Frank David Rossomondo, A.B.

Daniel Leslie Rothschild, A.B.

Evelyn Rogers, A.B., A.M. Samuel Harry Rosen, A.B.





John Sassani, A.B.
Walter John Schmidt, B.S.
George Wellington Slaughter, A.B.
David Soloway, A.B.
Leo Hehir Speno, A.B.
John Daniel Stroud, A.B.
William Dennis Thibodeau, B.S.
Michael Patsy Vinciguerra, A.B.

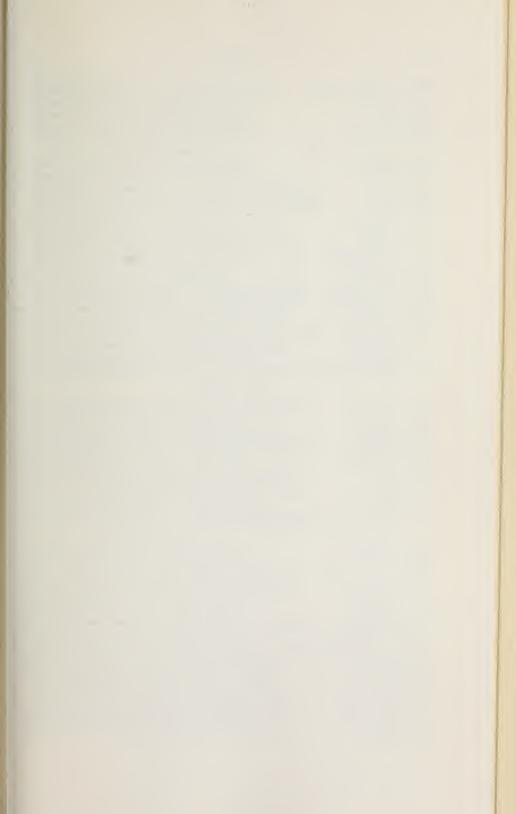
Binghamton City Hospital, Binghamton, N. Y.
Bellevue Hospital
Kingston Hospital, Kingston, N. Y.
Knickerbocker Hospital
St. Alexis Hospital, Cleveland, Ohio
Brooklyn Hospital, Brooklyn
Jersey City Hospital, Jersey City, N. J.
Mary Immaculate Hospital, Queens

# STUDENTS, 1930-1931

# CANDIDATES FOR DEGREE OF DOCTOR OF MEDICINE

# FOURTH YEAR

Thomas Brigham Aitcheson, A.B., 1928, Cornell University Jesse B. Aronson, A.B., 1927, Cornell University Adalberto Barroso-Bernier, A.B., 1928, Cornell University	Brooklyn, N. Y.
, ., ., ., .,	Santa Marta, Colombia, S. A.
Harold William Beaty, A.B., 1927, Cornell University	Jamestown, N. Y.
Graham L. Bennett, A.B., 1928, Cornell University	Bath, N. Y.
Charles James Benninger, A.B., 1926, Leland Stanford	
	San Francisco, Calif.
James Dinwiddie Bowen, A.B., 1927, Washburn College	ge Topeka, Kans.
Charles M. Brane, A.B., 1928, Cornell University	Yonkers, N. Y.
Walter Stratton Britt, Jr., A.B., 1927, University of A	
Keeve Brodman, B.S., 1927, College of the City of Ne	
Alvin R. Carpenter, A.B., 1928, Cornell University	Binghamton, N. Y.
Francis Lee Carroll, A.B., 1927, Cornell University	Oneida, N. Y.
William Henry Cassebaum, A.B., 1927 Cornell Univers	
John S. Cregar, B.S., 1927, Bucknell University	Plainfield, N. J.
Harry John Degenhardt, A.B., 1927, Brown University	
Ira H. Degenhardt, A.B., 1928, Cornell University	Brooklyn, N. Y.
John William Draper, Jr., A.B., 1927, Dartmouth Coll	
Leonard Druckerman, A.B., 1928, Cornell University	Brooklyn, N. Y.
Joseph Patrick Durkin, B.S., 1927, Manhattan College	
Harmon Saul Ephron, A.B., 1923, A.M., 1925, Universit	
Benjamin Esterman, A.B., 1927, Columbia University	Brooklyn, N. Y.
Lyman R. Fisher, A.B., 1928, Cornell University	Ithaca, N. Y.
Elizabeth P. Fleming, A.B., 1927, Mount Holyoke Col	lege Beverly, Mass. Brooklyn, N. Y.
Donald Karl Flessa, B.S., 1926, St. John's College Frank S. French, A.B., 1927, Cornell University	Rochester, N. Y.
Eugene Willard Green, A.B., 1928, Columbia University	·
Donald Carr Griffin, A.B., 1922, Dartmouth College,	raterson, 11. j.
A.M., 1925, Columbia University	New York, N. Y.
Germaine Guntzer, B.S., 1923, Trinity College, D. C.	Port Chester, N. Y.
Thomas Hale Ham, B.S., 1927, Dartmouth College	St. Davids, Pa.
Ruth F. Harral, A.B., 1927, Wilson College	Drexel Hill, Pa.
Herbert Edelman Heim, A.B., 1927, Bucknell Universi	
Robert T. Henkle, A.B., 1927, Cornell University	New London, Conn.
Rachel G. Holloway, A.B., 1923, Wellesley College	New York, N. Y.
Mary Brickett Holt, A.B., 1925, State University of Io	wa Cedar Rapids, Iowa
Elizabeth Humeston, B.S., 1926, Elmira College	Huntington, L. I., N. Y.
Eugene M. Katzin, A.B., 1927, Cornell University	Newark, N. J.
Charles Edmund Kiessling, A.B., 1928, Columbia Univ	
Henry Peter Lange, B.S., 1927, Colgate University	New York, N. Y.
Irving Le Bell, B.S., 1928, University of Pennsylvania	New York, N. Y.
Hyman Levy, A.B., 1928, Cornell University	Rochester, N. Y.
Sidney Walter Levy, A.B., 1927, Cornell University	New York, N. Y.
Abraham Lieberson, A.B., 1927, Columbia University	Brooklyn, N. Y.
Alfred Lilienfeld, B.S., 1927, New York University	Brooklyn, N. Y.
Marion Cotton Loizeaux, A.B., 1927, Wellesley College	New York, N. Y.





Martin Henry Lutz, Jr., A.B., 1928, Ohio University Joseph John McEvoy, B.S., 1927, St. John's College Julius Marcus, A.B., 1928, Cornell University Robert C. Markey, B.S., 1927, Earlham College Clara B. Owens, A.B., 1926, Cornell University Leo Price, D.V.M., 1914, Cornell University,

B.S., 1927, New York University
Julius L. Rogoff, A.B., 1928, Cornell University
Herman Rothman, B.S., 1927, New York University
Frank William Samuels, B.S., 1927, University of Nevada
Albert Christy Santy, B.S., 1927, Pennsylvania State College
Charles Douglas Sawyer, A.B., 1927, Univ. of Michigan
Jacob Schneider, A.B., 1927, Cornell University
Roman George Schweizer, B.S., 1926, Rutgers University
William Seldeen, A.B., 1928, Cornell University
Morris Carlton Snitkoff, A.B., 1927, Columbia University
Charles Spark, B.S., New York University
Vernon O. Stahl, A.B., 1926, A.M., 1927, Pomona College
William Dorus Stubenbord, B.S., 1927, Wesleyan University

Burton Warren Trask, Jr., A.B., 1927, Bowdoin College Elisha B. Van Deusen, B.S., 1927, Cornell University Lawrence S. Ward, B.S., 1927, College of the City of New York Mosetta Constance White, A.B., 1927, Barnard College Duncan Whitehead, A.B., 1926, Cornell University

Herbert Morton Williams, B.S., 1927, College of the City of New York New York, N. Y.

### THIRD YEAR

Orrin Emanuel Anderson, B.S., 1928, Muskingum College Philip Ashman, A.B., 1928, Cornell University Thomas Ralph Austin, B.S., 1926, University of Arizona Rudolf Friedhold Bachmann, B.S., 1928, Harvard University Charles Jones Baker, A.B., 1928, Tufts College Vincent Harold Beeaker, A.B., 1928, University of Maine William Troy Bivings, Jr., B.S., 1927, Emory University Charles Kevork Bogoshian, A.B., 1928, Hamilton College May Annette Borquist, A.B., 1923, Reed College Daniel Joseph Bradley, B.S., 1928, University of Notre Dame

Daniel Francis Brophy, B.S., 1920, College of the City of New York A.M., 1924, Columbia University

Frederic Scott Carr, B.S., 1928, Tufts College
John Girard Connell, A.B., 1929, Cornell University
William Alexander Cooper, A.B., 1928, Stanford University
Charles Hubbard Cornish, A.B., 1928, Cornell University
Jesse Potter Eddy, 3rd, Ph.B., 1928, Brown University
Marion Fairfield, A.B., 1928, Wellesley College
Havelock Frank Fraser, A.B., 1925, University of Washington
Constance Friess, A.B., 1928, Barnard College
Raymond Gettinger, B.S., 1926, College of the City of New York
William Casper Goldwin, A.B., 1924, Cornell University
Harriet Louise Hardy, A.B., 1928, Wellesley College
Michael John Hogan, A.B., 1929, University of Urah

Michael John Hogan, A.B., 1929, University of Utah Alan Lawrence Jacobs, A.B., 1928, Columbia University Leif Yngue Jacobsen, A.B., 1928, Columbia University Carl Conrad Janowsky, A.B., 1929, Cornell University Herbert Maltby Jones, A.B., 1929, Cornell University Nelsonville, Ohio Richmond Hill, L. I., N. Y. New York, N. Y. Dayton, Ohio State College, Pa.

New York, N. Y.
Brooklyn, N. Y.
New York, N. Y.
Reno, Nevada
Jeannette, Pa.
Port Chester, N. Y.
Brooklyn, N. Y.
Elizabeth, N. J.

Amityville, L. I., N. Y.
Brooklyn, N. Y.
New York, N. Y.
Los Angeles, Calif.
Little Neck, L. I., N. Y.
Rumford, Maine

Rumford, Maine South Cairo, N. Y. New York, N. Y. New York, N. Y.

New York, N. Y. Fitchburg, Mass. ork New York, N. Y.

New York, N. Y.
New York, N. Y.
Chandler, Ariz.
Waltham, Mass.
Pittsfield, Mass.
Rumford, Maine
Atlanta, Ga.
Utica, N. Y.
New York, N. Y.

New York, N. Y. rk, New York, N. Y. Kingston, N. Y.

Meriden, Conn.
Mountain View, Calif.
Maplewood, N. J.
Providence, R. I.
Hanover, N. H.
Bellingham, Wash.
Jamaica, L. I., N. Y.

New York, N. Y.
Brooklyn, N. Y.
Baltimore, Md.
Pocatello, Idaho
New York, N. Y.
New York, N. Y.
New York, N. Y.

Auburn, N. Y.

Merrill Edward Joss, A.B., 1929, Columbia University Washington, D. C. Edmund Noah Joyner, 3rd, B.S., 1927, Virginia Military Institute Savannah, Ga. Margaret Mathilde Klumpp, B.S., 1928, Tufts College New York, N. Y. Henry Carnie Lawson, A.B., 1928, Brown University Fall River, Mass. Joseph Howard Marvin, B.S., 1925, B.S.S., 1926, College of the City of New York, M.A., 1926, Columbia University New York, N. Y. Jack Masur, B.S., 1928, New York University New York, N. Y. William Bernard McDonough, B.S., 1930, University of Wisconsin La Crosse, Wis. Harold Russell Meyers, Jr., A.B., 1927, M.S., 1929, Brown University New York, N. Y. New York, N. Y. Walter Modell, B.S., 1928, College of the City of New York Marjory Jarvis Nelson, A.B., 1928, Barnard College New York, N. Y. Albert Upham Peacock, A.B., 1927, Colby College Providence, R. I. Lincoln Rahman, A.B., 1923, Cornell University Ossining, N. Y. Salvatore Rainone, A.B., 1929, Cornell University New York, N. Y. Mary Davis Ridgway, A.B., 1929, Cornell University White Church, N. Y. Harry Melvin Rose, A.B., 1928, Yale University Niles, Ohio Max Rosen, B.S., 1928, College of the City of New York New York, N. Y. New York, N. Y. Robert Edward Rothenberg, A.B., 1929, Cornell University Jeffersonville, N. Y. Dorothy Katherine Scheidell, A.B., 1928, Barnard College Elmhurst, L. I., N. Y. Richard Harry Schmidt, A.B., 1929, Cornell University Abbey David Seley, A.B., 1928, New York University New York, N. Y. Howard Paul Serrell, B.S., 1928, Dartmouth College Montvale, N. J. Thomas Eugene Shaffer, A.B., 1929, Cornell University Williamsport, Pa. Stephen Huntington Sherman, A. B., 1926, Yale University Bridgeport, Conn. Thomas Dick Slagle, A.B., 1928, University of North Carolina Franklin, N. C. Frank Adelbert Spellman, Jr., Ph.B., 1928, Brown University Somers, Conn. Port Washington, N. Y. Albert North Stevenson, Jr., A.B., 1925, Amherst College Joseph Martin Swindt, A.B., 1928, Pomona College Pomona, Calif. Joseph Arthur Tamerin, B.S., 1928, New York University Hudson, N. Y. Ynez Coit Tyler, A.B., 1930, University of California San Francisco, Calif. John Pettit West, Jr., B.S., 1927, Alabama Polytechnic Institute Clayton, Ala. New York, N. Y. Herman Edwin Wirth, B.S., 1928, New York University

#### SECOND YEAR

John L. Alley, A.B., 1929, Princeton University Charles W. Beattie, A.B., 1929, Cornell University Alberic H. Bellerose, Jr., A.B., 1929, Dartmouth College Nils William Bolduan, A.B., 1929, Columbia University William J. Bruckner, B.S., 1929, New York University Frank A. M. Bryant, A. B., 1930, Cornell University Phillips K. Champion, A.B., 1930, Cornell University Willard J. Chapin, A.B., 1930, Cornell University Mario S. Cioffari, A.B., 1928, Cornell University Nathaniel Cooper, B.S., 1929, College of the City of New York August R. Crane, A.B., 1929, Hamilton College William J. Cranston, Jr., A.B., 1929, Hamilton College John Haag Eckel, B.S., 1929, New York University Leon H. Ehrlich, B.S., 1929, College of the City of New York Francis Xavier Fagan, Ph.B., 1929, Brown University Katherine Ellen Falconer, A.B., 1929, Wellesley College Wayne W. Fox, A.B., 1929, Harvard University Francis G. Genin, B.S., 1930, Pennsylvania State College

Alexander Wolf, A.B., 1928, Columbia University

Benjamin Zimmerman, A.B., 1929, Cornell University Seymour Zucker, A.B., 1928, Columbia University

> New York, N. Y. Binghamton, N. Y. Rutland, Vt. New York, N. Y. New York, N. Y. Mt. Vernon, N. Y. Philadelphia, Pa. Leicester, N. Y. New Rochelle, N. Y. New York, N. Y. New York, N. Y. Kingston, N. Y. Mt. Vernon, N. Y. New York, N. Y. Waterbury, Conn. Jamestown, N. Y. Fulton, N. Y. Jeannette, Pa.

Jersey City, N. J. White Plains, N. Y.

New York, N. Y.

Walter Henry Hagen, B.S., 1929, Rutgers University Edward A. Hagmann, A.B., 1929, Pomona College Thomas G. Harvey, B. S., 1930, University of Maine Harold G. Higgins, A. B., 1930, Cornell University Robert J. Hochland, A.B., 1929, University of Michigan Willard L. Hogeboom, A.B., 1930, Cornell University Robert I. Hood, A.B., 1930, Cornell University R. Scott Howland, A.B., 1930, Cornell University Betty Huse, A.B., 1929, University of Wisconsin Eleanor R. Ives, A.B., 1926, University of Southern California Margaret H. Jones, A.B., 1925, Radcliffe College,

A.M., 1927, Vassar College Gerald Klatskin, A.B., 1929, Cornell University Irving L. Kohn, A.B., 1929, Cornell University Harold H. Lowenstein, A.B., 1930, Cornell University Ruth I. Lyman, A.B., 1930, Cornell University Norman Margolius, A.B., 1929, Cornell University Virgil Mason, A.B., 1928, Wabash College Paul T. McAlpine, A. B., 1930, Colgate University Isabel McConagha, A.B., 1927, Westminster College George J. McDonnell, B.S., 1929, University of Notre Dame George B. Mider, A.B., 1930, Cornell University William J. Neidlinger, B.S., 1929, Rutgers University Colgate B. Phillips, A.B., 1929, Williams College Charles E. Rieser, B.S., 1925, College of the City of New York Elise G. Schlosser, A.B., 1929, Barnard College Rudolph C. Schretzmann, A.B., 1929, Cornell University Beryl W. Scully, A.B., 1929, Earlham College Horace I. Slater, Ph.B., 1929, Brown University Wallace T. Smith, A.B., 1930, Cornell University William B. Stocking, A.B., 1930, Cornell University Emily E. Sturgis, A.B., 1929, Wellesley College

William J. Sullivan, A.B., 1930, Cornell University

Herman I. Wortis, A.B., 1929, New York University

William O. Wuester, Jr., A.B., 1929, New York University

Harry D. Vickers, A.B., 1929, Colgate University

Eleanor Webb, A.B., 1929, Wellesley College

Maplewood, N. J.
Redlands, Calif.
Fort Fairfield, Maine
New York, N. Y.
New York, N. Y.
Binghamton, N. Y.
Corning, N. Y.
Elmira, N. Y.
New York, N. Y.

Alhambra, Calif. Portland, Maine New York, N. Y. New York, N. Y. New York, N. Y. Middletown, N. Y. Catskill, N. Y. Rossville, Ind. New York, N. Y. New Wilmington, Pa. Keansburg, N. J. Canisteo, N. Y. Plainfield, N. J. New York, N. Y. New York, N. Y. New York, N. Y. Rutherford, N. J. Rome, N. Y. Port Chester, N. Y. Rockaway, N. Y. Ithaca, N. Y. Chevy Chase, Md. Auburn, N. Y. Little Falls, N. Y.

Auburn, N. Y. Little Falls, N. Y. New York, N. Y. Brooklyn, N. Y. Pompton Lakes, N. J.

### FIRST YEAR

George Newton Ballentine, B.S., 1930, Bucknell Theodore C. Bauerlein, A.B., 1928, St. Mary's College Frederick R. Brown, Cornell University \*
Veronica C. Brown, A.B., 1925, Cornell University Peter L. Carnesale, A.B., 1930, Cornell University Walter I. Chapman, A.B., 1930, Johns Hopkins University C. Gardner Child, 3rd, A. B., 1930, Yale University William T. Doran, Jr., A.B., 1930, Dartmouth College William Epstein, B.S., 1930, College of the City of New York Gladys J. Fashena, A.B., 1929, Hunter College Dorothy L. Frame, A.B., 1930, Vassar College Nathan B. Friedman, A.B., 1930, Harvard University Marion Hotopp, A.B., 1921, Mount Holyoke College Heloise B. Hough, A.B., 1929, Barnard College Charles A. Janeway, A.B., 1930, Yale University

Lewisburg, Pa.
Topeka, Kans.
Floral Park, N. Y.
New York, N. Y.
New York, N. Y.
Westwood, N. J.
New York, N. Y.
Greenwich, Conn.

<sup>\*</sup> Admitted under Clause II.

130 Cornell

Percy H. Jennings, Jr., A.B., 1930, Yale University	New York, N. Y.
Joseph J. Kanich, Cornell University *	Coaldale, Pa.
Jack A. Lee, B.S., 1929, Emory University	Covington, Ga.
Leon S. Loizeaux, Cornell University *	New York, N. Y.
Eugene Michailovsky, A.B., 1930, Cornell University	New York, N. Y.
Thomas P. E. Mathews, A.B., 1930, Columbia University	Yonkers, N. Y.
Helen M. McKee, B.S., 1927, Connecticut College	New Haven, Conn.
John M. McLean, M.E., 1930, Stevens Institute of Technol	logy New York, N. Y.
Adolph Meltzer, B.S., 1930, College of the City of New Yor	
James A. Moore, A.B., 1930, Cornell University	Albany, N. Y.
Roger B. Nelson, A.B., 1930, Cornell University	Jamestown, N. Y.
A. Thornton Scott, A.B., 1930, Princeton University	Lexington, Ky.
Henry Thomas Sherman, B. S., 1930, Emory University	Blakely, Ga.
Vincent J. Simmon, A.B., 1929, Amherst College	New York, N. Y.
Wilson F. Smith, Jr., Ph.B., 1930, Yale University	New York, N. Y.
George H. Stollwerck, A.B., 1930, Colgate University	Montclair, N. J.
Howard T. Stuch, A.B., 1929, University of Michigan	Allegan, Mich.
Arthur J. Thompson, Columbia University *	New York, N. Y.
H. Bernard Tillman, Ph.B., 1930, Brown University	Springfield, Mass.
Harry G. Tounge, Jr., B.S., 1930, University of New Hamps	
Morton L. Wadsworth, Ph.B., 1929, University of Chicago	Chicago, Ill.
William P. Whalen, A.B., 1930, Fordham University	New York, N. Y.
Edward T. Yorke, B.S., 1930, University of Notre Dame	Carteret, N. J.
FIRST YEAR AT ITHACA	

	****** * ** **
Elizabeth C. Adams, A.B., 1926, Wellesley College	Willsboro, N. Y.
Virginia Barrett, Cornell University *	Sayre, Pa.
Michael A. Brody, B.S., 1928, New York University	New Brunswick, N. J.
Robert LaT. Cavenaugh, A.B., 1930, Cornell University	Berkeley, Calif.
Joseph A. Coleman, Cornell University *	New York, N. Y.
William H. Eberle, Cornell University *	Ashtabula, Ohio
Kenneth T. Fairfax, Cornell University *	Geneva, N. Y.
George G. Flenner, Cornell University *	Hamilton, Ohio
Otto S. Hensle, B.S., 1930, Washington and Jefferson College	Rutherford, N. J.
John W. Hirshfeld, A.B., 1930, Cornell University	Detroit, Mich.
Earl P. Lasher, Cornell University *	Yonkers, N. Y.
Donald C. Malcolm, B.S., 1930, Washington and Jefferson Co	ollege Indiana, Pa.
Robert E. Mountain, Cornell University *	Olean, N. Y.
Harry M. Murphy, Cornell University *	Buffalo, N. Y.
Frederick W. Rea, Cornell University	New Philadelphia, Ohio
Adrian F. Reed, A.B., 1928, DePauw University	Greencastle, Ind.
Harry Strongin, Cornell University *	New York, N. Y.
Duane B. Walker, Cornell University	Rochester, N. Y.
William R. Ward, Jr., A.B., 1930, Colgate University	Newark, N. J.
LeRoy Wardner, Cornell University *	Saranac Lake, N. Y.

# SUMMARY

Fourth Year	
Third Year	
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First Year at Ithaca	19
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Candidates for the degree of M.D.	240

<sup>\*</sup> Admitted under Clause II.





## GRADUATE STUDENTS

(Not Candidates for a Degree)

(1101 Chinalaniaa Tok ii Badkaa)	
Anne M. Belcher, A.B., 1917,	
M.D., 1920, Cornell University (Anatomy)	New York, N. Y.
Thomas C. Cary, B.S., 1924, Trinity College,	
M.D., 1928, Yale University (Neuro-Anatomy)	Hartford, Conn.
Sadie B. Caslow, M.D., 1922, Loyola University (Pathology)	New York, N. Y.
Henry S. F. Cooper, A.B., 1917, Yale University,	
M.D., 1924, Harvard University (Anatomy)	New York, N. Y.
Louise D. Ireland, A.B., 1929, Barnard College (Physiology)	New York, N. Y.
Joseph D. Marraffino, B.S., 1920,	
M.D., 1922, New York University (Anatomy)	New Rochelle, N. Y.
Georgia R. Montgomery, A.B., 1929, Smith College (Chemistry)	New York, N. Y.
Oscar Wald, M.D., 1914, Fordham University (Anatomy)	New York, N. Y.

## GRADUATE STUDENTS

(CANDIDATES FOR PH.D.)

William N. Etkin, B.S., 1928, College of the City of New York (An	natomy)
William H. Summerson, B.Chem., 1927,	New York, N. Y.
A.M., 1928, Cornell University (Chemistry)	New York, N. Y.





# CORNELL UNIVERSITY

The GRADUATE SCHOOL (Degrees A.M., Ph.D., etc.)

The COLLEGE OF ARTS AND SCIENCES (Degrees A.B. and B.Chem.)

The COLLEGE OF LAW (Degree LL.B.)

The MEDICAL COLLEGE\* (Degree M.D.)

The NEW YORK STATE VETERINARY COLLEGE (Degree D.V.M.)

The COLLEGE OF AGRICULTURE (Degree B.S.)

The COLLEGE OF ARCHITECTURE (Degree B.Arch.)

The COLLEGE OF CIVIL ENGINEERING (Degree C.E.)

The SIBLEY COLLEGE of Mechanical Engineering and Mechanic Arts (Degree M.E.)

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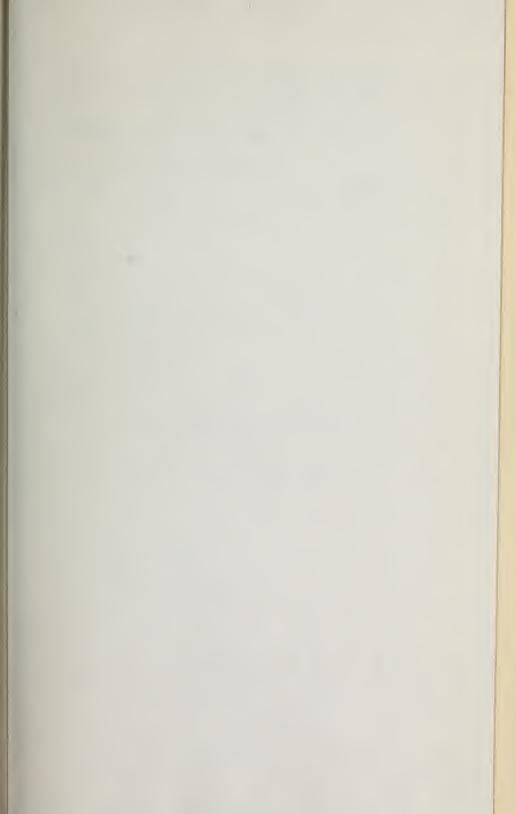
SECRETARY, CORNELL UNIVERSITY,

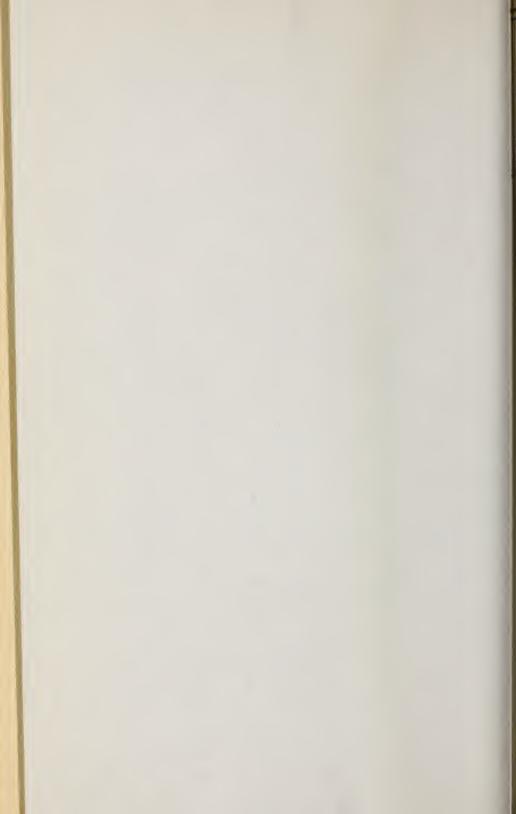
Ithaca, N. Y.

\*The full four-year course of the CORNELL UNIVERSITY MEDICAL COLLEGE is given in the City of New York; the work of the first year is also given at Ithaca. Any student may take the first year either at New York City or at Ithaca. All students take the last three years of the course in New York City only. Special announcement of the Medical College and information of every kind regarding all four years will be furnished on application to

SECRETARY, Cornell University Medical College, First Avenue and 28th Street, New York City.

or (regarding first year at Ithaca),
SECRETARY, Cornell University Medical College,
Stimson Hall, Ithaca, N. Y.





# CORNELL UNIVERSITY MEDICAL BULLETIN

**VOLUME XXI** 

NUMBER ONE

ANNOUNCEMENT

OF THE

MEDICAL COLLEGE



# Cornell University Medical Bulletin

Issued Quarterly



PUBLISHED AT CONCORD, NEW HAMPSHIRE FOR THE

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THESE PUBLICATIONS INCLUDE

The Annual Announcement of the Medical College

and

Reprinted Studies from the Several Departments of the Medical College and Its Research Laboratories

# CORNELL UNIVERSITY

# Medical Bulletin

OCT 4 1968

ANNOUNCEMENT

OF THE

Medical College

AT

NEW YORK CITY

and the first year, also, at ITHACA, N. Y.

July, 1931







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# **CALENDAR**

1931

Sept. 21. Monday—Examinations begin for admission to the first year of all departments of Cornell University at Ithaca, N. Y.

Sept. 24. Thursday—Examinations begin for conditioned students and for those applying for advanced standing in the Medical College at New York City.

Sept. 28. Monday—Last day for Registration. Sept. 29. Tuesday, 9 A.M.—Instruction begins.

Oct. 12. Monday—Legal holiday.

Nov. 3. Tuesday—Election Day, legal holiday.

Nov. 25. Wednesday, 6 P.M.—Thanksgiving recess begins. Nov. 30. Monday, 9 A.M.—Thanksgiving recess ends.

Dec. 19. Saturday, 6 P.M.—First term ends.\* Christmas recess begins.

1932

Jan. 4. Monday, 9 A.M.—Second term begins.

Feb. 22. Monday—Legal holiday.

Mar. 12. Saturday, 6 P.M.—Second term ends.\*

Mar. 14. Monday, 9 A.M.—Third term begins.\* Apr. 21. Thursday, 6 P.M.—Easter recess begins.

Apr. 23. Monday, 9 A.M.—Easter recess ends. May 28. Saturday, 6 P.M.—Third term ends.

May 30. Monday—Legal holiday.

May 31. Tuesday—Examinations begin.

June 2. Thursday, 4 P.M.—Commencement.

All students must be registered at the secretary's office on or before September 28th. No student will be admitted after Registration Day without special permission of the Faculty. Immediately after registration the fees must be paid at the treasurer's office.

Any student may take the first year at either New York City or Ithaca. All students take the last three years at New York City only.

<sup>\*</sup> The session is subdivided into three terms of twelve, ten, and eleven weeks, respectively, and courses are scheduled in conformity with this sub-division.

# BOARD OF TRUSTEES

The President of the University	] Ithaca
The Governor of New York State	Albany
The LIEUTENANT-GOVERNOR OF NEW YORK STATE.	Albany
The Speaker of the Assembly	Albany Albany Albany Albany
The State Commissioner of Education	Albany
The State Commissioner of Agriculture	Albany
The President of the State Agricultural	9.
Society	Albany
The Librarian of the Cornell Library	Ithaca
Charles Ezra Cornell, A.B., LL.B	Ithaca
AT MAT D D TY D	(B.) Ithaca
4D II M D 3 I D	(B.) Ithaca
	` '
*Mynderse Van Cleef, B.S	(B.) Ithaca
*Mary M. Crawford, A.B., M.D.	(A.) New York
*S. WILEY WAKEMAN, M.E	(A.) Quincy, Mass.
*Peter G. Ten Eyck	(G.) Albany
EZRA B. WHITMAN, C.E	(G.) Baltimore, Md.
HENRY HERMAN WESTINGHOUSE	(B.) New York
ROGER B. WILLIAMS, A.M	(B.) Ithaca
Bancroft Gherardi, M.E., M.M.E	(A.) New York
JACOB F. SCHOELLKOPF, JR., A.B	(A.) Buffalo
Myron C. Taylor, LL.B	(G.) New York
CUTHBERT W. POUND, LL.D	(B.) Lockport
Edwin N. Sanderson, M.E	(A.) New York
WALTER C. TEAGLE, B.S.	(B.) New York
James W. Parker, M.E.	(A.) Detroit, Mich.
ALFRED D. WARNER, B.S.	(A.) Wilmington, Del.
George R. VanNamee, LL.B.	(G.) New York
II DI DI	(B.) New York
C M C	(B.) New York
	(A.) Syracuse (A.) New York
MAXWELL M. UPSON, M.E	
HORACE WHITE, A.B., LL.B	(G.) Syracuse
ROBERT E. TREMAN, A.B	(A.) Ithaca
STANTON GRIFFIS, A.B	(G.) New York
WALTER P. COOKE, LL.D	(B.) Buffalo
Frank H. Hiscock, A.B	(B.) Syracuse
J. DuPratt White, B.L	(B.) New York
Frank E. Gannett, A.B	(A.) Rochester
Frank H. Miller, V.S	(G.) New York
HOWARD E. BABCOCK, Ph.B	(Gr.) Ithaca
FACULTY REPRESENTATI	IVES
HERMAN DIEDERICHS, M.E	Ithaca
Ernest G. Merritt, M.E	
LIBERTY H. BAILEY, M.S., LL.D	
* Term of office expires in 1932, the next group of six in 1933,	
A, elected by Alumni; G, appointed by Governor; Gr, elected by	State Grange.
, , , , , , , , , , , , , , , , , , , ,	

# THE NEW YORK HOSPITAL-CORNELL MEDICAL COLLEGE ASSOCIATION

The Association has been formed by an agreement between the New York Hospital and Cornell University in order to associate organically the Hospital and the Medical College and to effect a complete cooperation of the medical, educational, and scientific activities of the two institutions.

The Association is operated under the supervision of a Joint Administrative Board, composed of three Governors of the New York Hospital, three representatives of the Trustees of Cornell University, and one other member elected by the appointed members.

The Joint Administrative Board is composed of the following mem-

bers:

Edward W. Sheldon, *Chairman* William Woodward Frank L. Polk

Livingston Farrand J. DuPratt White Walter L. Niles

J. PIERPONT MORGAN

# MEDICAL COLLEGE COUNCIL

The Council was established by action of the Trustees of the University for the purpose of making recommendations to the Board of Trustees or the Executive Committee in relation to the business management of the Medical College. It is composed of the President of the University, the Dean of the Medical College, three members of the Board of Trustees elected by the Trustees, and two members of the Medical Faculty elected by the Faculty.

The Council at present consists of the following members:

LIVINGSTON FARRAND, President of the University and Chairman, ex-officio.

G. Canby Robinson, Director of the New York Hospital-Cornell Medical College Association.

H. H. WESTINGHOUSE,

Myron C. Taylor, of the Board of Trustees.

WALTER C. TEAGLE

WILLIAM J. ELSER, JOHN A. HARTWELL, of the Faculty.

J. Thorn Willson, Secretary.

# THE FACULTY AND TEACHING STAFF

LIVINGSTON FARRAND, PH.D., M.D. President of Cornell University. A.B. 1888, A.M. 1891, Princeton; M.D. 1891, Columbia; Ph.D. 1924, Rensselaer; L.H.D. 1922, Hobart; LL.D. 1914, Colorado College and Denver, 1917 Michigan, 1919 Colorado, 1922 Union, Princeton, and Colgate, 1923 Yale, 1925 Pennsyl-

vania and Dartmouth, 1927 Toronto, 1929 Columbia.

Instructor 1893-1901, Adjunct Professor of Psychology 1901-1903, Professor of Anthropology, Columbia, 1903-1914; President, University of Colorado, 1914-1919; Director Tuberculosis Commission in France, International Health Board, 1917-1918; Chairman Central Committee, American Red Cross, 1919-1921; President, Cornell University, 1921-.

G. CANBY ROBINSON, M.D. Director, New York Hospital-Cornell Medical College Association; Professor of Medicine.

A.B. 1899, M.D. 1903, Johns Hopkins; LL.D. 1928, Washington University. Assistant in Anatomy, Cornell, 1903–1904; Associate, Rockefeller Institute, 1910–1913; Associate Professor of Medicine, Washington University, 1913–1920, and Dean, 1917-1920; Professor of Medicine, Vanderbilt, 1920-1928, and Dean, 1920-1928; Acting Professor of Medicine, Johns Hopkins, 1921-1922; Professor of Medicine, Cornell, 1928-, and Director of the New York Hospital-Cornell Medical College Association, 1928-.

# PROFESSORS EMERITUS

GEORGE THOMPSON ELLIOTT, M.D.

J. CLIFTON EDGAR, M.D. GEORGE WOOLSEY, M.D. IRVING S. HAYNES, M.D. JOHN ROGERS, A.B., M.D. FREDERICK WHITING, M.D.

Frederic S. Dennis, M.D. Professor of Clinical Surgery, Emeritus. Professor of Clinical Medicine, Department of Dermatology, Emeritus.

Professor of Obstetrics, Emeritus. Professor of Clinical Surgery, Emeritus. Professor of Clinical Surgery, Emeritus. Professor of Clinical Surgery, Emeritus.

Professor of Clinical Surgery, Department of Otology, Emeritus.

# MEMBERS OF THE FACULTY

## **PROFESSORS**

James Ewing, M.D. Professor of Pathology. A.B. 1888, A.M. 1891, Sc.D. 1923, Amherst, 1913, Sc.D., Pittsburgh, 1911; M.D.

1891, Columbia; LL.D. Kenyon, Western Reserve, 1931.

Clark Fellow in Pathology 1894–1897, Instructor in Clinical Pathology 1897–1899, Columbia; Professor of Pathology, Cornell, 1899–.

Director of Cancer Research, Memorial Hospital.

Lewis A. Conner, M.D.

Professor of Medicine.

Ph.B. 1887, Yale; M.D. 1890, Columbia.

Instructor in Medicine 1898–1904, Professor of Clinical Medicine 1900–1916, Professor of Medicine, Cornell, 1916–.

Attending Physician, New York Hospital.

Graham Lusk, Ph.D.

Professor of Physiology.

Ph.B. 1887, Columbia; Ph.D. 1891, Munich; A.M. (Hon.) 1897, Sc.D. 1908, Yale;

LL.D. 1923, Glasgow; F.R.S. 1900, Edinburgh; M.D. 1929, Munich.

Instructor 1891–1892, Assistant Professor 1892–1895, Professor of Physiology 1895–1898, Yale; Professor of Physiology, New York University and Bellevue Hospital 1898–1909; Professor of Physiology, Cornell, 1909–. Member of the National Academy of Sciences.

Scientific Director, Russell Sage Institute of Pathology.

ROBERT A. HATCHER, M.D.

Professor of Pharmacology.

Ph.G. 1889, Philadelphia College of Pharmacy; M.D. 1898, Tulane; Sc.D. 1929, Columbia.

Professor of Materia Medica, Cleveland School of Pharmacy, 1899–1904; Instructor in Pharmacology, Western Reserve, 1901–1904; Instructor 1904–1906, Assistant Professor 1906–1908, Professor of Pharmacology, Cornell, 1908–.

CHARLES R. STOCKARD, Ph.D., M.D. Professor of Anatomy. B.S. 1899, M.S. 1901, Mississippi A. and M. College; Ph.D. 1906, Columbia; Sc.D.

1920, Cincinnati; M.D. 1922, Wurzburg.

Assistant in Zoology, Columbia, 1905–1906; Assistant in Histology and Embryology 1906–1908, Instructor 1908–1909, Assistant Professor of Embryology 1909–1911, Professor of Anatomy, Cornell, 1911–. Member of National Academy of Sciences.

WILLIAM J. ELSER, M.D. Professor of Bacteriology and Immunology.

M.D. 1895, Bellevue Hospital Medical College.

Assistant in Pathology 1901–1904, Instructor 1904–1908, Assistant Professor of Bacteriology 1908–1909, Professor of Bacteriology and Immunology, Cornell, 1909–.

Director, Division of Laboratories, New York Hospital.

STANLEY R. BENEDICT, Ph.D.

Professor of Chemistry.

A.B. 1906, University of Cincinnati; Ph.D. 1908, Yale.

Instructor in Chemistry, Syracuse, 1908–1909; Associate in Biological Chemistry, Columbia, 1909–1910; Assistant Professor of Chemical Pathology 1910–1911, Assistant Professor 1911–1912, Professor of Chemistry, Cornell, 1912–. Member of the National Academy of Sciences. Corresponding Member Société de Biologie (Paris).

Director, Department of Chemistry, Memorial Hospital.

CHARLES L. GIBSON, M.D.

Professor of Surgery.

A.B. 1886, M.D. 1889, Harvard.

Clinical Instructor in Urology, 1900–1902, Instructor in Surgery 1902–1908, Professor of Clinical Surgery 1907–1915, Adjunct Professor 1916–1917, Associate Professor 1917–1918, Professor of Surgery, Cornell, 1918–.

Consulting Surgeon, New York Hospital.

GEORGE GRAY WARD, M.D. Professor of Obstetrics and Gynecology-

M.D. 1891, Long Island College Hospital.

Professor of Diseases of Women, New York Post-Graduate, 1905–1916; Instructor 1898–1914, Lecturer on Gynecology 1914–1916, Assistant Professor 1916–1917, Associate Professor 1917–1921, Professor of Obstetrics and Gynecology, Cornell, 1921–.

Chief Surgeon, Woman's Hospital.

OSCAR M. SCHLOSS, M.D.

Professor of Pediatrics.

B.S. 1901, Alabama Polytechnic Institute; M.D. 1905, Johns Hopkins.
Assistant in Pediatrics, New York University and Bellevue Hospital 1909–1912;
Assistant 1912–1914, Instructor, Columbia, 1914–1918; Professor of Pediatrics,
Harvard, 1921–1923; Professor of Pediatrics, Cornell, 1918–1921 and 1923–.
Visiting Physician, New York Nursery and Child's Hospital.

JOHN A. HARTWELL, M.D. Associate Professor of Surgery, and Professor of Clinical Surgery.

Ph.B. 1889, M.D. 1892, Yale.

Instructor in Physiology 1898–1900, Demonstrator of Anatomy 1900–1902, Assistant Professor of Physiology 1902–1909, Professor of Clinical Surgery 1909–, Assistant Professor 1911–1918, Associate Professor of Surgery, Cornell, 1918–.

EUGENE F. DuBois, M.D.

Professor of Medicine.

A.B. 1903, Harvard; M.D. 1906, Columbia.

Medical Director, Russell Sage Institute of Pathology 1912–1917 and 1919–; Lecturer in Pathological Physiology 1912–1917, Associate Professor 1919–1930, Professor of Medicine, Cornell, 1930–.

Director, Second Medical Division, Bellevue Hospital.

Nellis B. Foster, M.D. Associate Professor of Medicine.

B.S. 1898, Sc.D. 1926, Amherst; M.D. 1902, Johns Hopkins.

Lecturer in Therapeutics 1907–1910, Instructor 1907–1908, Associate in Physiological Chemistry, Columbia, 1909–1912; Professor of Medicine, Michigan, 1917–1919; Assistant Professor 1913–1916, Associate Professor of Medicine, Cornell, 1919–. Associate Physician, Chief of Metabolism Laboratory, New York Hospital.

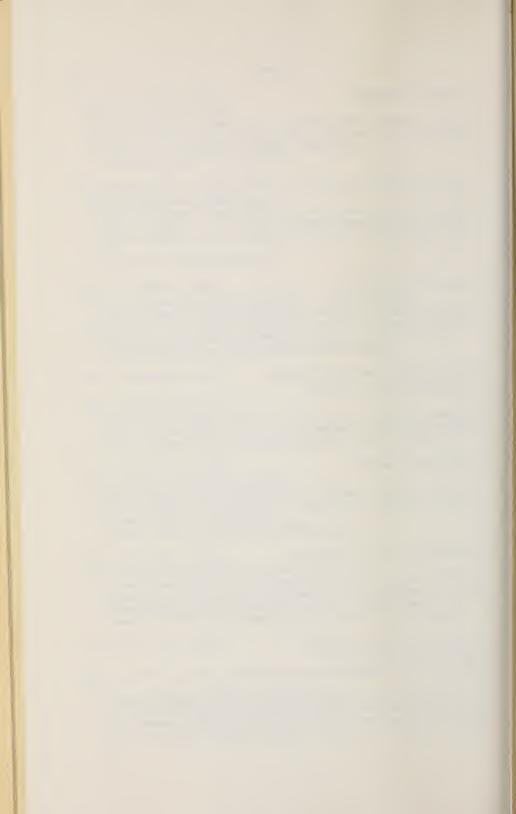
CHARLES L. DANA, M.D.

Professor of Clinical Medicine, Department of Neurology.

A.B. 1872, A.M. 1875, LL.D. 1905 Dartmouth, 1927 Edinburgh; M.D. 1875, Columbia.

Professor of Physiology, Woman's Medical College of the New York Infirmary for Women and Children 1880–1888; Professor of Nervous Diseases, Dartmouth, 1884; Professor of Nervous and Mental Diseases, New York Post-Graduate 1886–1898; Professor of Clinical Medicine, Department of Neurology, Cornell, 1898–.





EDWARD L. KEYES, M.D.

Professor of Clinical Surgery, Department of Urology.

A.B. 1892, Ph.D. 1901, Georgetown; M.D. 1895, Columbia.

Adjunct Professor of Urology, New York Polyclinic 1908-1910; Professor of Urology, New York University and Bellevue 1910-1911; Professor of Clinical Surgery, Department of Urology, Cornell 1911-.

Consulting Urologist to Bellevue and Memorial Hospitals.

Professor of Clinical Surgery. ALFRED S. TAYLOR, M.D.

Ph.B. 1891, A.M. 1892, Brown; M.D. 1895, Columbia.

Instructor, Columbia, 1898-1910; Professor of Operative Surgery, 1913-1917, Lecturer on Surgery, 1911-1918, Professor of Clinical Surgery, Cornell, 1915-1923 and 1926-.

OTTO H. SCHULTZE, M.D. Professor of Medical Jurisprudence.

A.B. 1886, College of the City of New York; M.D. 1889, Columbia.

Instructor in Pathology 1898-1905, Lecturer 1905-1908, Assistant Professor of Pathological Anatomy 1909-1916, Professor of Medical Jurisprudence, Cornell, 1917-.

Professor of Clinical Pathology. WILLIAM C. THRO, M.D.

B.S. 1900, A.M. 1901, M.D. 1907, Cornell.

Instructor in Bacteriology, New York University and Bellevue 1909-1910; in Histology and Embryology 1901-1905, Assistant Professor 1910-1918, Professor of Clinical Pathology, Cornell, 1918-.

ALEXANDER LAMBERT, M.D. Professor of Clinical Medicine.

A.B. 1884, Ph.B. 1885, Yale; M.D. 1888, Columbia. Professor of Clinical Medicine, Cornell, 1898-.

Director, Fourth Medical Division, Bellevue Hospital.

WALTER L. NILES, M.D.

Professor of Clinical Medicine.

M.D. 1902, Cornell.

Instructor in Medicine 1904, Assistant Professor of Clinical Medicine 1913-1918, Assistant Professor of Medicine 1918-1920, Dean 1918-1929, Professor of Clinical Medicine, Cornell, 1920-.

Visiting Physician Bellevue Hospital.

BURTON J. LEE, M.D.

Professor of Clinical Surgery.

Ph.B. 1894, Yale; M.D. 1898, Columbia.

Instructor in Clinical Surgery 1909-1912, and in Surgical Pathology 1913-1915, Assistant Professor 1916-1917, Professor of Clinical Surgery, Cornell, 1917-. Clinical Director and Attending Surgeon, Memorial Hospital.

CHARLTON WALLACE, M.D.

Professor of Clinical Surgery,

Department of Orthopedic Surgery.

A.B. 1894, Transylvania; M.D. 1898, Columbia.

Professor of Clinical Surgery, Department of Orthopedic Surgery, Cornell, 1913-.

JOHN C. TORREY, PH.D.

Professor of Public Health and Preventive Medicine.

A.B. 1898, Sc.D. 1922, Vermont; Ph.D. 1902, Columbia.

Assistant in Zoology, Columbia, 1900-1901; Assistant in Histology and Bacteriology 1904-1905, Fellow 1905-1906, Assistant 1908-1909, Instructor 1909-1910, Assistant Professor of Experimental Pathology 1910-1916, Lecturer 1908-1916, Professor of Hygiene 1916-1927, Professor of Public Health and Preventive Medicine, Cornell, 1927-.

JAMES M. HITZROT, M.D. Professor of Clinical Surgery.

A.B. 1897, Princeton; M.D. 1901, Johns Hopkins.

Instructor in Surgery 1904-1912, Assistant Professor 1912-1920, Professor of Clinical Surgery, Cornell, 1920-.

Attending Surgeon, New York Hospital.

HANS J. SCHWARTZ, M.D.

Professor of Clinical Medicine, Department of Dermatology.

M.D. 1898, McGill.

Instructor in Clinical Pathology 1911–1920, Clinical Instructor 1907–1920, Professor of Clinical Medicine, Department of Dermatology, Cornell, 1920–.

HARRY M. IMBODEN, M.D. Professor of Radiology.

A.B. 1899, Lebanon Valley; M.D. 1903, Jefferson.
Instructor in Surgery, Presbyterian Hospital 1916–1922; Professor of Radiology,
Cornell, 1922–.

Foster Kennedy, M.D.

Professor of Clinical Medicine, Department of Neurology.

M.B., B.Ch. 1906, Royal University Ireland; M.D. 1910, Dublin. Instructor 1911–1915, Assistant Professor 1916–1917, Associate Professor 1917–1925, Professor in Clinical Medicine, Department of Neurology, Cornell, 1925–Visiting Neurologist, Bellevue Hospital.

MALCOLM GOODRIDGE, M.D. Professor of Clinical Medicine.

A.B. 1894, Princeton; M.D. 1898, Columbia.

Instructor in Pediatrics, Columbia, 1905–1909; Assistant Professor of Therapeutics 1916–1923, Professor of Clinical Medicine, Cornell, 1923–.

Pol N. Coryllos, M.D.

Professor of Clinical Surgery and Research Associate in Surgery.

A.B., M.D. 1901, Athens; B.S., M.S., M.D. 1914, Paris.
Instructor in Anatomy 1903–1907, Clinical Professor of Gynecology 1911–1914,
Paris; Professor of Surgery, Athens, 1919–1923; Assistant in Surgical Research
1926–1930, Research Associate in Surgery 1930–, Professor of Clinical Surgery,
Cornell, 1924–.

ARTHUR F. COCA, M.D.

Professor of Immunology.

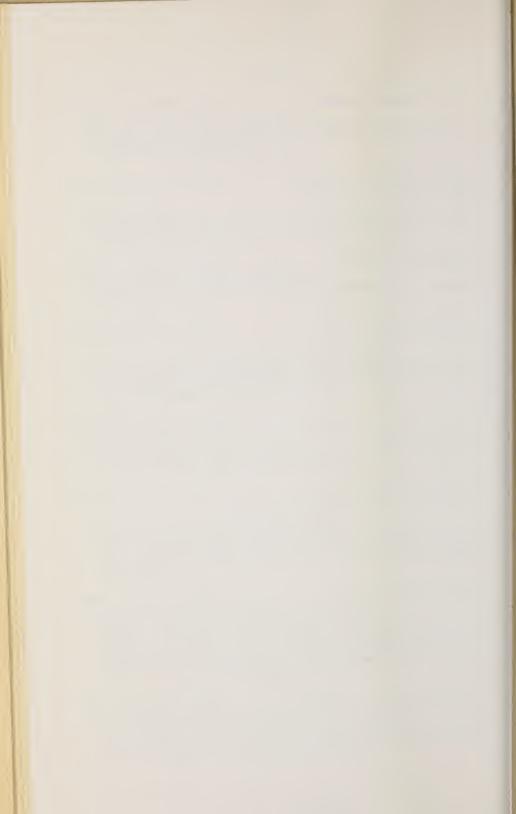
A.B. 1896, M.A. 1899, Haverford; M.D. 1900, Pennsylvania.

Assistant in Pathology 1900–1902, in Histology 1902–1903, Demonstrator of Pathology, Pennsylvania, 1903–1905; Assistant in Chemistry, Cancer Institute, Heidelberg, 1907–1909; Instructor in Experimental Pathology 1911–1915, in Pathology 1916–1917, in Immunology 1918–1921, Assistant Professor of Immunology 1921–1924, Professor of Immunology, Cornell, 1924–.

JOSHUA E. SWEET, M.D. Professor of Surgical Research.

A.B. 1897, A.M. 1900, Sc.D. 1922, Hamilton; M.D. 1901, Giessen. Fellow in Hygiene, Pennsylvania, 1901–1902; Rockefeller Institute 1902–1906, Assistant Professor 1906–1917, Professor of Surgical Research, Pennsylvania, 1917–1926; Professor of Surgical Research, Cornell, 1926–.





JOHN W. CHURCHMAN, M.D.

Professor of Experimental Therapeutics.

A.B. 1898, A.M. 1901, Princeton; M.D. 1902, Johns Hopkins; A.M. 1915, Yale. Instructor in Surgery, Johns Hopkins, 1909–1911; Assistant Professor 1912–1914, Professor 1914–1919, Yale; Associate in Hygiene 1923–1925, Associate Professor 1925–1926, Professor of Experimental Therapeutics, Cornell, 1926–.

Bernard Samuels, M.D.

Professor of Clinical Surgery, Department of Ophthalmology.

M.D. 1907, Jefferson.

Voluntary Assistant, Prague, 1910–1913; Clinical Instructor 1914–1922, Assistant Professor 1922–1927, Professor of Clinical Surgery, Department of Ophthalmology, Cornell, 1927–.

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Professor of Psychiatry.

M.D. 1885, New York University.

Professor of Psychiatry, Cornell, 1928-.

General Psychiatric Director, New York Hospital.

MORTIMER W. RAYNOR, M.D. Professor of Clinical Psychiatry.

M.D. 1904, Syracuse.

Lecturer on Psychopathology 1921–1922, Assistant Professor 1922–1927, Clinical Professor of Psychiatry, Columbia, 1927–1928; Professor of Clinical Psychiatry, Cornell, 1928–.

CHARLES E. FARR, M.D.

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Instructor in Surgery 1921–1922, Assistant Professor 1922–1927, Professor of Clinical Surgery, Cornell, 1927–.

Associate Attending Surgeon, New York Hospital.

THOMAS G. TOUSEY, M.D., Major, M. C., U. S. Army,

Professor of Military Science and Tactics.

M.D. 1906, Cornell.

Instructor in Department of Training, Carlisle, 1921–1927; Professor of Military Science and Tactics, New York University and Bellevue, 1930, Cornell, 1930–.

ISAAC J. FURMAN, M.D. Professor of Clinical Psychiatry.

M.D. 1906, Syracuse.

Instructor in Psychopathology, Columbia University, 1922–1928, Professor of Clinical Psychiatry, Columbia, 1924–1928; Professor of Clinical Psychiatry, Cornell, 1931–.

DAYTON J. EDWARDS, Ph.D. Associate Professor of Physiology.

B.S. 1906, Maine; Ph.D. 1913, Columbia.

Instructor in Biology, Maine, 1906–1908; Assistant in Zoology, Columbia, 1908–1909; Instructor in Physiology, College of the City of New York, 1913–1917; Instructor 1918–1919, Lecturer 1919–1921, Assistant Professor 1921–1922, Associate Professor of Physiology, Cornell, 1922–.

CHARLES V. MORRILL, Ph.D. Associate Professor of Anatomy.

A.M. 1906, Ph.D. 1910, Columbia.

Assistant in Zoology, Columbia, 1906–1908; Lecturer in Histology and Embryology, Syracuse, 1908–1910; Instructor in Anatomy, New York University and Bellevue, 1910–1915; Instructor 1915–1919, Assistant Professor 1919–1923, Associate Professor of Anatomy, Cornell, 1923–.

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Associate Professor of Clinical Surgery, Department of Urology, Cornell, 1925—
Attending Surgeon in charge of Urological Department, Bellevue Hospital.

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Radiology, Cornell, 1931-.

Douglas Symmers, M.D. Assistant Professor of Pathological Anatomy.

M.D. 1901, Jefferson.

Research Fellow in Pharmacology, Columbia, 1905–1906; Instructor 1907–1911, Professor of Pathology 1911–1916, Professor of Pathological Anatomy, New York University and Bellevue, 1918–; Assistant Professor of Pathological Anatomy, Cornell, 1918–.

Director of Laboratories, New York City Department of Hospitals.

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M.D. 1900, Columbia.

Instructor 1903–1913, Clinical Professor of Surgery, Columbia, 1913–1919; Assistant Professor of Surgery, Cornell, 1919–. Attending Surgeon, St. Luke's Hospital.

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M.D. 1907, Cornell.

Instructor 1911–1918, Assistant Professor of Pharmacology 1918–1923, Instructor in Therapeutics 1920–1921, Assistant Professor of Clinical Medicine, Cornell, 1923–.

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Instructor in Operative Surgery 1914–1919, Assistant Professor of Clinical Surgery, Cornell, 1919–.

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M.D. 1899, Woman's Medical College of New York Infirmary.

Assistant 1910–1912, Instructor 1912–1920, Instructor in Surgical Pathology 1918–, Assistant Professor of Pathology, Cornell, 1920–.

Serologist, Memorial Hospital.

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Instructor in Urology, New York Post-Graduate, 1902–1913; Clinical Professor of Orthopedic Surgery, New York Polyclinic, 1926–1929; Clinical Instructor 1914–1920, Assistant Professor of Clinical Surgery, Department of Orthopedic Surgery, Cornell, 1920–.

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Assistant in Physiology 1908-1909, Assistant in Experimental Therapeutics 1910-1915, Lecturer on Applied Immunology 1921-1922, Assistant Professor of Applied Immunology, Cornell, 1922-.

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A.B. 1896, Boston; M.D. 1900, Cornell.

Instructor, New York Post-Graduate, 1909-1916; Instructor 1916-1922, Assistant Professor of Obstetrics and Gynecology, Cornell, 1922-.

ARTHUR L. HOLLAND, M.D.

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M.D. 1897, New York University.

Instructor 1916-1921, Assistant Professor of Clinical Medicine, Cornell, 1921-. Assistant Attending Physician, New York Hospital.

Russell L. Cecil, M.D.

Assistant Professor of Clinical Medicine.

A.B. 1902, Princeton; M.D. 1906, Medical College of Virginia. Fellow 1912, Instructor of Clinical Medicine, Columbia, 1912-1916; Instructor 1916-1920, Assistant Professor of Clinical Medicine, Cornell, 1920-. Assistant Visiting Physician, Bellevue Hospital.

RALPH G. STILLMAN, M.D.

Assistant Professor of Clinical Pathology.

A.B. 1903, Yale; M.D. 1907, Columbia.

Demonstrator of Physiology, Columbia, 1909-1911; Instructor in Clinical Medicine 1912-1922, in Surgical Pathology 1919-1920, in Clinical Pathology and Pathology 1920-1922, Assistant Professor of Clinical Pathology, Cornell, 1922-. Assistant Director, Division of Laboratories, New York Hospital.

Louis C. Schroeder, M.D.

Assistant Professor of Pediatrics.

M.D. 1911, Columbia.

Instructor in Pediatrics, Columbia, 1915-1919; Instructor 1919-1920, Associate 1920-1923, Assistant Professor of Pediatrics 1923-. Attending Physician, New York Nursery and Child's Hospital.

Guilford S. Dudley, M.D. Assistant Professor of Clinical Surgery.

A.B. 1910, M.D. 1913, Cornell.

Assistant 1917-1921, Instructor of Clinical Surgery 1921-1923, Assistant Professor of Clinical Surgery, Cornell, 1923-.

Director, Second Surgical Division, Bellevue Hospital.

George W. Wheeler, M.D. Assistant Professor of Bacteriology. M.D. 1907, Cornell.

Assistant in Clinical Pathology 1914-1915, in Bacteriology 1915-1919, Instructor 1919-1923, Assistant Professor of Bacteriology, Cornell, 1923-. Bacteriologist, New York Hospital.

GEORGE PAPANICOLAOU, M.D. Assistant Professor of Anatomy. M.D. 1904, Athens; Ph.D. 1910, Munich.

Research Assistant Oceanographical Museum of Monaco 1910; Assistant 1914-1916, Instructor 1916-1923, Assistant Professor of Anatomy, Cornell, 1923-.

HENRY B. RICHARDSON, M.D. Assistant Professor of Medicine.

A.B. 1910, M.D. 1914, Harvard.

Assistant in Medicine, Johns Hopkins, 1916–1918; Columbia 1919–1921; Fellow, Russell Sage Institute of Pathology, 1919–; Assistant Professor of Medicine, Cornell, 1924–.

HAROLD E. B. PARDEE, M.D.

Assistant Professor of Clinical Medicine.

A.B. 1906, M.D. 1909, Columbia.

Instructor in Physiology, Columbia, 1913–1917; Associate in Medicine 1921–1926,
Instructor 1917–1921, Assistant Professor of Clinical Medicine, Cornell, 1926–.
Associate Attending Physician to New York Hospital.

James Denton, M.D. Assistant Professor of Pathology.
M.D. 1914, St. Louis.

Assistant Pathologist, International Typhus Research Commission, 1919–1920; Assistant 1920–1922, Instructor in Pathological Anatomy 1922–1923, in Surgical Pathology 1922–1923, Assistant in Pathology 1925–1926, Assistant Professor of Pathology, Cornell, 1926–.

MORRIS K. SMITH, M.D. Assistant Professor of Clinical Surgery.

A.B. 1907, A.M. 1911, M.D. 1911, Dartmouth.

Assistant in Clinical Surgery 1917–1918, Instructor in Surgery 1920–1927, Assistant Professor of Clinical Surgery, Cornell, 1927–.

Lynne A. Hoag, M.D. Assistant Professor of Pediatrics.

B.S. 1913, M.S. 1917, M.D. 1918, Michigan.

Assistant Demonstrator 1911–1913, Demonstrator 1915–1917, Michigan; Instructor 1913–1914, Assistant Professor, Vanderbilt, 1914–1915; Instructor in Pediatrics, Michigan, 1920–1922, Harvard, 1922–1923; Associate 1923–1926, Assistant Professor of Pediatrics, Cornell, 1926–.

Attending Physician, New York Nursery and Child's Hospital.

WALTER C. KLOTZ, M.D.

Assistant Professor of Public Health and Preventive Medicine.

M.D. 1898, Columbia.

Instructor in Clinical Medicine, California, 1913–1915; Associate Professor of Medicine, Virginia, 1919–1921; Assistant Professor of Public Health and Preventive Medicine, Cornell, 1926–.

Director of Cornell Clinic.

ARTHUR PALMER, M.D. Acting Head and Assistant Professor of Clinical Surgery, Department of Laryngology.

A.B. 1911, Brown; M.D. 1915, Cornell.

Assistant 1919–1921, Instructor 1921–1922, Associate in Department of Laryngology, New York Post-Graduate, 1922–1924; Instructor 1923–1927, Assistant Professor of Clinical Surgery, Department of Laryngology, Cornell, 1927–.

Hervey C. Williamson, M.D. Assistant Professor of Obstetrics and Gynecology.

M.D. 1908, New York University.
Instructor in Obstetrics 1917–1927, Assistant Professor of Obstetrics and Gynecology, Cornell, 1927–.

Visiting Obstetrician Bellevue Hospital, and John E. Berwind Maternity Clinic.

McKeen Cattell, M.D. Assistant Professor of Physiology.

B.S. 1914, Columbia; A.M. 1917, Ph.D. 1920, M.D. 1924, Harvard. Fellow in Physiology, Harvard, 1914–1917 and 1919–1920, in Pharmacology 1920–1924; Instructor 1924–1927, Assistant Professor of Physiology, Cornell, 1927–.

BYRON STOOKEY, M.D. Assistant Professor of Clinical Surgery.

A.B. 1908, Southern California; A.M. 1919, M.D. 1919, Harvard.
Instructor 1919–1921, Associate 1921–1927, Assistant Professor of Neurology 1927–1929, Associate Professor of Neuro-Surgery, Columbia, 1929–; Associate Professor of Neuro-Surgery, New York Post-Graduate, 1925–1926; Assistant Professor of Surgery, Cornell, 1927–.

José F. Nonidez, Sc.D. Assistant Professor of Anatomy.

M.S. 1913, Sc.D. 1914, Madrid.
Professor of Zoology, Murcia, 1916–1920; Research Fellow, Spanish Government, 1917–1919; Assistant in Zoology, Columbia, 1918–1919; Research Associate, Carnegie Institution, 1919–1920; Instructor 1920–1926, Associate 1926–1928, Assistant Professor of Anatomy, Cornell, 1928–.

J. Frank Fraser, M.D. Assistant Professor of Clinical Medicine, Department of Dermatology.

M.D. C.M. 1888, Dalhousie; M.D. 1892, Bellevue.
Instructor 1913–1919, Lecturer in Pathology, New York University and Bellevue,
1919–1923; Instructor in Dermato-Pathology 1924–, Assistant Professor of Clinical
Medicine, Department of Dermatology, Cornell, 1928–.

MORTON C. KAHN, Ph.D. Assistant Professor of Public Health and Preventive Medicine.

A.M. 1917, Columbia; B.S. 1916, Ph.D. 1924, Cornell.
Instructor 1919–1927, Associate 1927–1928, Assistant Professor of Public Health and Preventive Medicine, Cornell, 1928–.

LAWRENCE W. SMITH, M.D. Assistant Professor of Pathology.

A.B. 1916, M.D. 1920, Harvard.

Instructor 1920–1922 and 1923–1925, Assistant Professor of Pathology, Harvard, 1925–1928; Professor of Pathology and Bacteriology, Philippines, 1922–1923; Assistant Professor of Pathology, Cornell, 1928–.

WILLIAM H. CHAMBERS, Ph.D. Assistant Professor of Physiology.

B.S. 1915, M.S. 1917, Illinois; Ph.D. 1920, Washington University.

Assistant in Dairy Bacteriology, Illinois Agricultural Experimental Station 1915–1917; Fellow, Missouri Botanical Garden, 1919–1920; Assistant in Experimental Surgery, Washington University, 1920–1924; Fellow in Medicine, National Research Council at Cornell, 1924–1926; Instructor in Physiology, Yale, 1926–1928; Assistant Professor of Physiology, Cornell, 1928–.

HARRY GOLD, M.D. Assistant Professor of Pharmacology.

A.B. 1919, M.D. 1922, Cornell.

Instructor 1922-1929, Assistant Professor of Pharmacology, Cornell, 1929-.

CONNIE M. GUION, M.D.

Assistant Professor of Clinical Medicine.

A.B. 1906, Wellesley; A.M. 1913, M.D. 1917, Cornell.
Instructor, Vassar, 1906–1908; Instructor 1908–1910, Assistant Professor of Chemistry, Sweet Briar, 1910–1913; Instructor 1919–1930, Assistant Professor of Clinical Medicine, Cornell, 1930–.

Howard S. Jeck, M.D.

Assistant Professor of Clinical Surgery, Department of Urology.

Ph.B. 1904, Yale; M.D. 1909, Vanderbilt.

Assistant Demonstrator of Anatomy, Vanderbilt, 1910–1912; Instructor 1920–1930, Assistant Professor of Clinical Medicine, Department of Urology, Cornell, 1930–.

SAMUEL Z. LEVINE, M.D. Assistant Professor of Pediatrics.

A.B. 1916, College of the City of New York; M.D. 1920, Cornell.

Assistant 1924–1925, Instructor in Clinical Pediatrics 1925–1928, Associate 1928–1930, Assistant Professor of Pediatrics, Cornell, 1930–.

GEORGE W. HENRY, M.D. Assistant Professor of Psychiatry. A.B. 1912, Wesleyan; M.D. 1916, Johns Hopkins. Assistant, Johns Hopkins, 1917; Instructor 1928–1930, Assistant Professor of Psychiatry, Cornell, 1930–.

JOSEPH P. EIDSON, M.D.

Assistant Professor of Clinical Psychiatry.

A.B. 1912, Miami; M.D. 1916, Johns Hopkins. Instructor, Columbia, 1925–1927; Instructor 1926–1930, Assistant Professor of Psychiatry, Cornell, 1930–.

PHILIP B. ARMSTRONG, M.D. Assistant Professor of Anatomy. B.S. 1921, Massachusetts Agricultural College; M.D. 1926, Cornell. Assistant 1925–1927, Instructor 1927–1930, Assistant Professor of Anatomy, Cornell, 1930–.

RUSSEL H. PATTERSON, M.D.

Assistant Professor of Clinical Surgery.

A.B. 1914, Georgia; M.D. 1918, Harvard.
Assistant in Clinical Surgery 1921–1926, Instructor in Applied Anatomy 1924–1925, in Surgery 1926–1930, Assistant Professor of Clinical Surgery 1930–.

GERVAIS W. McAuliffe, M.D. Acting Head and Assistant Professor of Clinical Surgery, Department of Otology.

M.D. 1920, Long Island College Hospital.

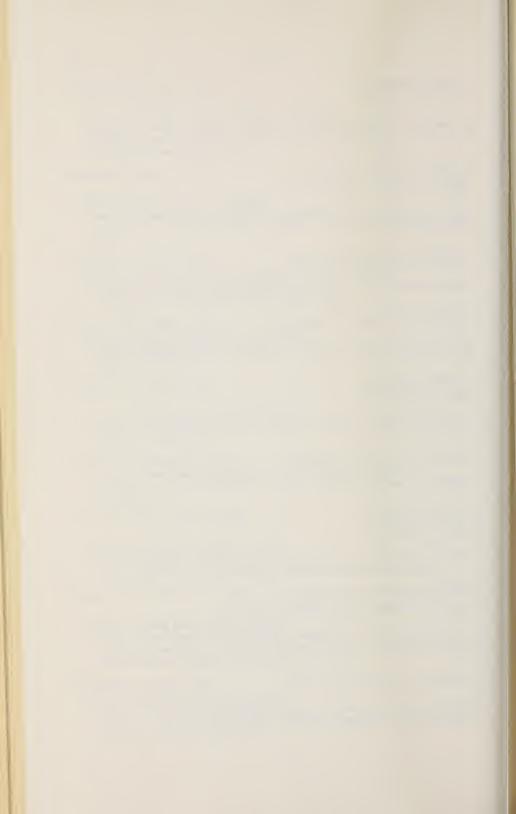
Chief of Ear, Nose and Throat Division, United States Marine Hospital No. 21, 1924–1926; Assistant, 1921–1922, Instructor, 1922–1931, Assistant Professor of Clinical Surgery, Department of Otology, Cornell, 1931–.

WILLIAM S. LADD, M.D. Assistant Professor of Medicine.

B.S. 1910, Amherst; M.D. 1915, Columbia.

Instructor, 1918–1919, 1921–1924, Associate in Medicine, Columbia 1924–1930; Instructor in Medicine, Johns Hopkins 1919–1921; Associate Dean and Assistant Professor of Medicine, Cornell, 1931–.





# THE TEACHING STAFF

#### **LECTURERS**

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#### **ASSOCIATES**

ARTHUR F. ANDERSON, M.D., Associate in Pediatrics.

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THOMAS K. DAVIS, M.D., Associate in Clinical Medicine, Department of Neurology.

Louis Hausman, A.B., M.D., Associate in Neuro-Anatomy.

Walter M. Kraus, M.D., Associate in Clinical Medicine, Department of Neurology.

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LUDWIG SCHOENTHAL, M.D., Associate in Pediatrics.

Fred W. Stewart, A.B., Ph.D., M.D., Associate in Pathology.

PHILIP MOEN STIMSON, A.B., M.D., Associate in Pediatrics.

JOHN E. SUTTON, JR., A.M., M.D., Research Associate in Surgery and Instructor in Clinical Surgery.

EMILIA M. VICARI, A.M., Research Associate in Anatomy.

MAY G. WILSON, M.D., Associate in Pediatrics.

# INSTRUCTORS AND ASSISTANTS

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Horace S. Baldwin, B.S., M.D., Instructor in Medicine.

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HERBERT BERGAMINI, LITT.B., M.D., Instructor in Clinical Surgery.

HARRY S. BERKOFF, A.B., M.D., Instructor in Clinical Medicine.

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MARY COOPER, B.S., Research Assistant in Surgery.

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Wade Duley, A.B., M.D., Assistant in Surgery and Research Assistant in Surgery.

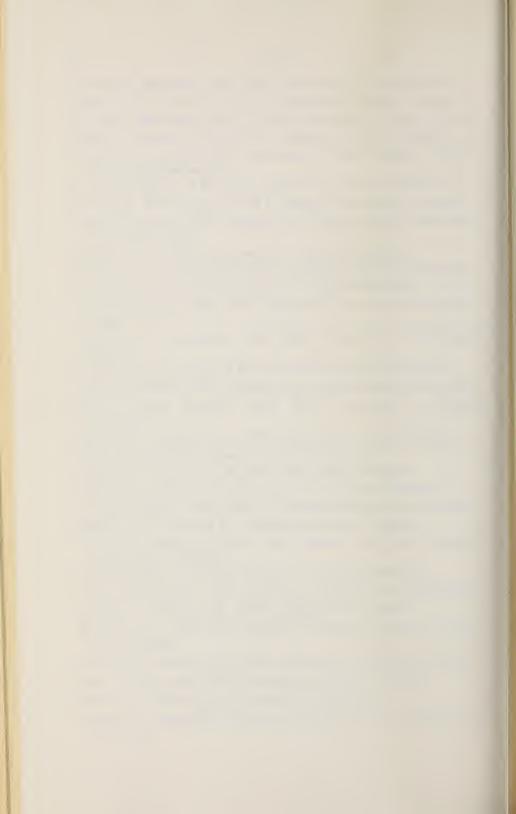
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CHARLES KAUFMAN, B.S., M.D., Instructor in Clinical Medicine.

Samuel F. Kelley, M.D., Instructor in Clinical Surgery, Department of Laryngology and Rhinology.

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#### GENERAL STATEMENT

#### HISTORY

ORNELL UNIVERSITY MEDICAL COLLEGE was established by the Board of Trustees of Cornell University on April 14, 1898, when they elected Dr. William M. Polk Director of the College and Dean of the Medical Faculty, and appointed six professors. The Medical College was made possible by the munificence of Colonel Oliver H. Payne, who provided the funds for the erection of the main building of the College, and pledged it his support. For several years he provided funds for the annual support of the College, and later made a generous provision for its permanent endowment by a gift of over four million dollars to the University.

In October, 1898, instruction began in temporary quarters. As the Medical College admitted a number of students with advanced standing, Cornell University granted the degree of Doctor of Medicine

for the first time in 1899.

In order to link up as far as could be done the Medical College in New York City with the University of which it is a part, instruction in the medical sciences was begun at Ithaca the same year that the Cornell Medical College came into being in New York City. The first two years of medical studies could be pursued either at Ithaca or in New York, while all students joined in New York City for the last two years, consisting mainly of clinical study, and the application of the medical sciences in the practice of medicine in its many divisions. The plan providing instruction at Ithaca was changed in 1908, as it was felt that the medical students should come earlier under the influence of the teaching centered about the various New York hospitals, and since that date only the first year of medical instruction has been offered on the campus of the University at Ithaca.

The avowed purpose of the Cornell University Medical College has been from its foundation two-fold, the development of physicians of the best type and the extension of knowledge by means of research in the nature and cure of disease. From the beginning therefore the Medical Faculty has held the attitude which constitutes the University School. Teaching and training alone do not fulfill its obligations, but it is committed to the task of adding to the store of medical knowledge, of seeking for new means of combating disease, and of constantly searching into the mysteries that disturb health and well-

being in order that all mankind may be benefited.

# THE NEW YORK HOSPITAL-CORNELL MEDICAL COLLEGE ASSOCIATION

The future of the Cornell University Medical College is now bound up with that of the New York Hospital, and after September 1932

the two institutions will occupy the same plant.

The New York Hospital was founded by Royal Charter on June 13th, 1771, in the reign of King George III, and has stood throughout the life of the nation as one of the foremost hospitals in the United States, as an institution rendering service to the sick and injured, and as a center of medical education. For a number of years, the Hospital and the Medical College have been partially affiliated. In June 1927, an agreement was entered into between Cornell University and the New York Hospital by which the New York Hospital-Cornell Medical College Association was formed for the purpose of bringing together their facilities and co-operating in the care of patients, in medical education, and in medical research. In order to harmonize the interests of the Hospital and of the Medical College, the Joint Administrative Board was formed, consisting of three representatives of each institution and a seventh member elected by those appointed by the Hospital and by the University.

Additional endowment has been secured by each institution. A group of buildings is being erected along the East River between 68th and 71st Streets, adjoining the Rockefeller Institute for Medical Research. The new plant will afford separate buildings for each of the various laboratory departments, and will include approximately 1000 hospital beds. Provision will be made for medicine, surgery, obstetrics and gynecology, pediatrics, and psychiatry in five distinct clinical

units.

The faculty of the Medical College and the professional staff of the Hospital are to be reorganized so as to form one body established on a University basis.

The new plant will be completed by the autumn of 1932. When it is occupied it will afford very favorable conditions for the conduct of medical education, for the pursuit of medical research, and for the

care of patients in all phases of medical practice.

The actual operation of the New York Hospital-Cornell Medical College Association becomes effective with the beginning of the academic year in 1932, at which time changes in the teaching methods and organization of the Medical College are contemplated. Looking forward to this time, the following new appointments to the medical faculty have been made.

Professor of Obstetrics and Gynecology, H. J. STANDER, M.D. M.S. 1916, University of Arizona; M.D. 1921, Yale.
Associate Professor of Obstetrics and Gynecology, Johns Hopkins, 1927–1931.





Professor of Surgery, GEORGE J. HEUER, M.D.

B.S. 1903, Wisconsin; M.D. 1907, Johns Hopkins.

Professor of Surgery, University of Cincinnati, 1922–1931.

Professor of Pathology, Eugene L. Opie, M.D.

A.B. 1893, M.D. 1897, Johns Hopkins.

Professor and Director Department of Pathology, University of Pennsylvania School of Medicine, and Director of Laboratories of the Henry Phipps Institute, 1923–1931.

Professor of Bacteriology and Immunology, James M. Neill, Ph.D.

B.S. 1917, Allegheny; Ph.D. 1921, Massachusetts Agricultural College.

Professor of Bacteriology and Immunology, Vanderbilt University School of Medicine, 1927–1931.

Professor of Physiology, Herbert S. Gasser, M.D.

A.B. 1910, A.M. 1911, Wisconsin; M.D. 1915, Johns Hopkins.

Professor of Pharmacology, Washington University School of Medicine, 1921–1931.

Professor of Psychiatry, George S. Amsden, M.D.

A.B. 1901, M.D. 1905, Harvard.

Professor of Psychiatry, N. Y. Post-Graduate Medical School, 1930-31.

These new members of the faculty will not assume their teaching duties until the new plant is occupied.

# FACILITIES FOR INSTRUCTION

During the academic year of 1931–1932, the Cornell University Medical College will utilize the same facilities for medical teaching

that it has had in past years.

The main college building occupies the block between Twenty-seventh and Twenty-eighth Streets on First Avenue, with its principal entrance on First Avenue opposite Bellevue Hospital. In this building are the departments of Anatomy, Chemistry, Physiology, Pathology, Bacteriology, and Clinical Pathology.

The Cornell University Medical College Clinic is also located in the main college building, where part of the clinical instruction is given.

The attendance in the Clinic averages about 550 patients daily and annually includes about 140,000 visits. The organization is such as to bring the Clinic into closest touch with the laboratory and research

facilities of the College.

The Department of Radiology as well as the Laboratory of Clinical Pathology is in direct connection with the Clinic, and by co-operation and co-ordination of work their services are placed at the constant disposal of the various other departments of the Clinic for the diagnosis and investigation of disease and for purposes of instruction.

Medical Social Service is included as one of the functions of the Clinic. This service is of assistance in discovering environmental factors in the cause and prevention of disease. It extends the scope of the medical staff in accord with the postulates of adequate medical and

hospital service.

The Library is supplied with current periodicals in German, French and English, which include nearly all of the more important journals in the field of medical science, and the back files of these periodicals include 12,000 bound volumes and 5,000 selected reprints and monographs. There is also a students' library of recent textbooks. Every effort is made to maintain a library commensurate with the needs of the College. A special reading room is provided for the convenience of students. A trained Librarian is in attendance to supply references and direct their work.

In addition to the College Library, students enjoy certain privileges at the Library of the New York Academy of Medicine, Fifth Avenue and 103d Street, the second largest medical library in the United

States, and at the various public libraries of the city.

THE LOOMIS LABORATORY (founded 1886 by Colonel Oliver H. Payne) serves the purpose of undergraduate instruction, in connection with the laboratories in the College building. It has also been reorganized as a research laboratory, and special departments have been

established in bacteriology, physiological chemistry, experimental medicine and pharmacology.

### CLINICAL FACILITIES

NEW YORK HOSPITAL.—The Medical College, through the courtesy of the Governors of the New York Hospital, has long been accorded certain privileges for instruction in its wards. On the first of January, 1913, a definite arrangement was established between Cornell University and the New York Hospital, through the donation to the hospital of a generous fund by Mr. George F. Baker, a Governor of the Hospital, upon the condition that thereafter the pathological and half the entire medical and surgical services of the institution should be definitely assigned to the Cornell University Medical College for the advancement of its teaching and research.

By this arrangement the University nominates the Attending Staff of its division and the Laboratory Staff and secures the admission of its students to the wards as clinical clerks, thereby enabling the College to make a definite provision in its course of instruction and research for work in the New York Hospital. Furthermore, the Laboratory Staffs of the different departments of the Medical College are placed at the service of the Hospital for the purpose of extending its

scientific work.

The hospital service thus assigned to the College comprises 100 beds. This service is exceedingly active. It includes several thousand acute and emergency cases brought in annually from a large ambulance and dispensary district.

Bellevue Hospital.—This hospital, located on First Avenue, directly opposite the Main College building, has 1,200 beds, and re-

ceives 24,000 patients annually.

The hospital is organized in four divisions, one of which has been placed by the Trustees of the hospital at the disposal of the Faculty of the Cornell University Medical College for medical instruction. The services thus intrusted to the College include, continuously, 90 medical beds, 90 surgical beds, 60 for urology, a neurological service, and for one-half the year 54 obstetrical beds, together with equal privileges with the other three divisions, giving continuous opportunity for instruction and research in the additional wards devoted to the treatment of alcoholic diseases, tuberculosis and the psychopathic diseases. There are also available 60 beds for instruction in gynecology by members of the staff assigned to this duty by the Cornell University Medical College.

The visiting staff of the Second, or Cornell Division is drawn entirely from the Faculty and instructors of the College, and by co-operation with the Medical Board of the Hospital this division has been organized with a view to the best interests of the patients, as well as with a

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view to furnishing adequate facilities for instruction. The students spend a considerable portion of the fourth year in this hospital as clinical or surgical "clerks," and during the preceding years frequent clinical instruction is conducted in its wards, as fully described under

"Details of the Plan of Instruction."

While Bellevue Hospital is provided with an elaborate Department of Pathology of its own, the scope of the hospital work of the Cornell Division is broadened by the intimate relation existing between the laboratories of the Medical College and the medical service of the hospital. In addition to the staff provided by the hospital, the College maintains a corps of research workers and special assistants who conduct their routine examinations in extension laboratories equipped by the College in rooms adjacent to the wards of the hospital, and who consummate their major investigations in the more completely equipped laboratories of the College building.

The Professors of Medicine and Surgery are directly responsible to the University for the conduct of the instruction in Bellevue Hospital.

Memorial Hospital.—Through the generosity of the late Dr. James Douglas, who provided the Hospital with an endowment for the study and treatment of cancer and allied diseases, the Memorial Hospital became affiliated in 1914 with Cornell University Medical

College.

The conditions upon which this union was consummated place upon Cornell University Medical College the responsibility for the medical and surgical activities of the hospital, subject however, so far as administrative action is concerned, to the approval of its Board of Managers. Cornell University Medical College is required to approve the five medical members of the Board of Managers of the Memorial Hospital, to nominate their successors in case of vacancies, and to name the medical and surgical staff, subject to the approval of the Board of Managers of the Hospital.

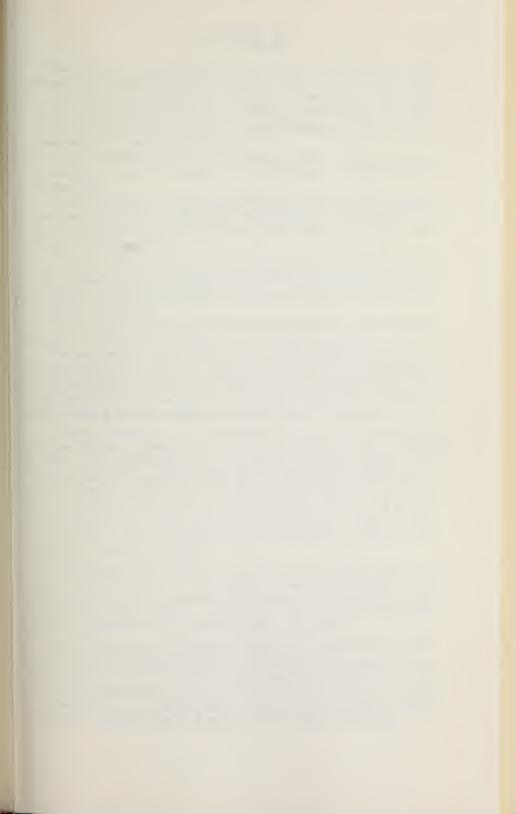
Since 1904 the work of the Memorial Hospital in cancer research has been conducted in the laboratories of Cornell University Medical College under the general direction of the department of pathology, and with the collaboration of heads of other departments. Later through the support of Dr. James Douglas, and the co-operation of the Board of Managers, it has been extended to the laboratories of the Memorial Hospital. A laboratory building accommodating pathology,

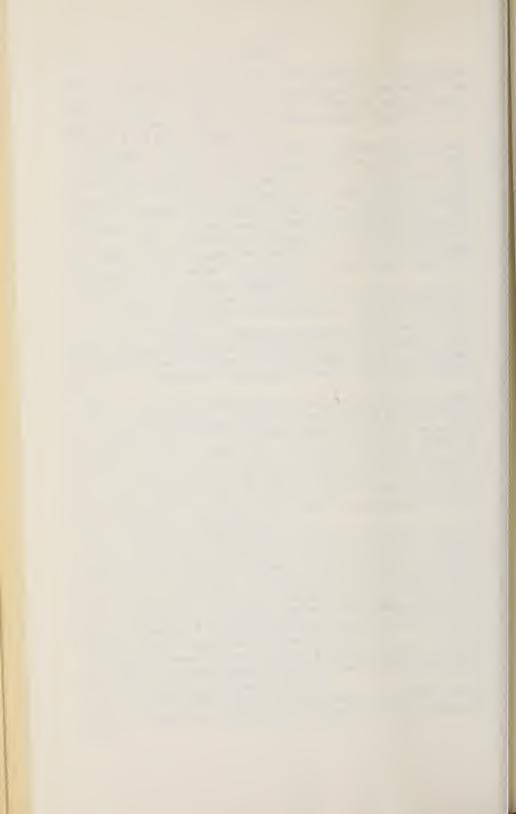
biology, chemistry and physics has been erected.

The organization of this work includes: Pathology, Professors Ewing and L'Esperance; Bacteriology, Professor Torrey; Chemistry, Profes-

sor Benedict; Biology, Professor Stockard.

Clinical studies in the diagnosis, natural history, and treatment of neo-plastic diseases are conducted in the hospital by the members of the Staff.





The John E. Berwind Maternity Clinic.—An affiliation having been consummated between the John E. Berwind Maternity Clinic and Cornell University Medical College, the medical direction of the Clinic is placed under the control of Cornell. The medical staff including the resident and house staffs are appointed by the Clinic only on nomination by the Medical College.

Cornell students are definitely assigned to the Clinic for practical instruction under the direction of the Professor of Obstetrics and

Gynecology.

Cornell students having been provided for, vacancies in the student staff will be filled by appointment. Application for such assignments should be made to the Superintendent of the Clinic at 125 East 103rd Street, New York City.

THE NEW YORK NURSERY AND CHILD'S HOSPITAL.—By courtesy of the Trustees of this Hospital, Cornell students are there instructed in Pediatrics. The Hospital offers splendid opportunities for the study of infants and children.

There are seventy-two beds on the Pediatric service, and in addition

there is in the same building an active maternity service.

The out patient department has an average yearly attendance of 8,000 infants and children, with special classes in Feeding; Malnutrition; Syphilis; Eczema and Cardiac Diseases. Both the indoor and outdoor services are utilized for teaching purposes. The members of the teaching staff have official connection with the hospital.

Woman's Hospital.—By a provision in the Act of Incorporation of the Woman's Hospital, it is open for the purpose of medical education. The splendid facilities of this hospital are used extensively for instruction in Gynecology under the direction of the Chief Surgeon, Dr. George Gray Ward, who is Professor of Obstetrics and Gynecology in the Medical College. Several other members of the staff are also members of the teaching staff of the College and excellent opportunities for clinical and laboratory instruction are offered in this hospital containing 289 beds.

Manhattan State Hospital, Ward's Island.—This hospital for the care and treatment of mental diseases accommodates over 5,000 patients. Through the courtesy of the Superintendent, the Department of Psychiatry is enabled to utilize this clinical material for bedside study of patients and for the instruction of students.

OTHER HOSPITALS.—In addition to the above, members of the Faculty of Cornell University Medical College hold appointments in various hospitals and dispensaries of the city, and are thus enabled to utilize for teaching purposes a great quantity and variety of clinical material.

Instruction is conducted at St. Luke's Hospital, Willard Parker Hospital, the Neurological Institute and St. Mary's Hospital.

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THE RUSSELL SAGE INSTITUTE OF PATHOLOGY.—The Russell Sage Institute of Pathology has been affiliated with the Second Medical (Cornell) Division of Bellevue Hospital since 1913. Endowed by Mrs. Russell Sage in 1907, it has provided funds for research work in pathology and medicine. Laboratory space has been generously given by the Trustees of Bellevue Hospital and clinical facilities have been furnished by the Cornell Medical Division. The Institute has constructed and equipped a respiration calorimeter and has maintained a metabolism ward adjacent to the general wards of the division. The research workers have been members of the hospital staff and have assisted in the care of patients and the instruction of students. The metabolism ward, chemical laboratories and calorimeter furnish unusual facilities for teaching the diseases of metabolism. Dr. Graham Lusk, Professor of Physiology, is the scientific director and Dr. Eugene F. DuBois, Professor of Medicine, is medical director of the Institute.

# REQUIREMENTS FOR ADMISSION AND GRADUATION

The Faculty of the Cornell University Medical College is of the opinion that candidates for admission to the medical profession should possess the liberal culture and general education implied by a college degree in Arts or Science. Since 1907 a standard of admission which requires the baccalaureate degree or its equivalent has been rigidly maintained. Only the following classes of candidates for the degree of M. D. are admitted to the Cornell University Medical College.

I. Graduates of approved colleges or scientific schools; or—

II. Seniors in good standing in approved colleges or scientific schools upon condition that their faculty will permit them to substitute the first year in the Cornell University Medical College for the fourth year of their college course, and will confer upon them the bachelor's degree upon the satisfactory completion of the year's work. No student admitted under this clause is permitted to enter the second year of the curriculum without having obtained a bachelor's degree.

III. Persons who give evidence by examinations that they have acquired an equivalent education to that signified by a bachelor's degree, and training sufficient to enable them to profit by the instruction offered in the Medical College. This rule is intended to apply to

students of foreign Universities.

ALL CANDIDATES FOR ADMISSION shall have satisfactorily completed, in an approved college, at least the following minimum requirements, in which a semester hour is the credit value of at least sixteen weeks' work, consisting of one hour of lecture or recitation or two or more hours of laboratory work, per week.

I. Physics, 8 semester hours, including laboratory work.

2. Chemistry, 12 semester hours (8 hours of inorganic, including qualitative analysis and 4 hours of organic chemistry). Quantitative Analysis is recommended but not required. It is advised that students acquire all the knowledge of chemistry possible in their preparatory years.

3. Biology (Zoology), 6 semester hours, including laboratory work. In addition to this minimum requirement, a course in General Histology with Embryology including the early development of the frog and chick is very desirable. Courses in the Comparative Anatomy of Vertebrates and Elementary Histological Technique are also recommended.

4. English, 6 semester hours.

5. Modern language, 6 semester hours—French or German.

6. Two additional semester hours of college credit will be required

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in each of the three subjects, Biology, English and Modern Language, in which no introductory high school course was offered for admission to college.

The number of students admitted to the first year class is limited to sixty-five. In order that the advantages of the Medical College may be equalized to all parts of the state and country, not more than five students from any one college will be admitted to the first year class,

except from Cornell University.

A Medical Student's Qualifying Certificate is required by the State of New York prior to matriculation as a medical student. Each student accepted for admission will supply a properly attested certificate together with a fee of \$1.00 which will be forwarded by the Secretary of the Medical Faculty to the New York State Department of Education with a request that the Certificate be issued. The requirements for admission are such that each accepted student should receive a Medical Student's Qualifying Certificate.

# APPLICATIONS FOR ADMISSION

All applications and inquiries regarding admission are to be addressed to the Secretary of the Medical Faculty from whom application forms may be obtained. Applications for admission should be submitted not later than January of the year during which admission is desired, and should be supported promptly by an official transcript of the college record. A recent unmounted photograph of the applicant must be attached to each application.

All applicants, if requested, are required to present themselves in person by appointment at the office of the Secretary at some time

after their credentials have been submitted.

Applications are passed upon by the Committee on Admissions as soon as possible after completion, and candidates are notified of the decision of the Committee. Accepted applicants are required to make a deposit of one hundred dollars within a specified time, normally about two weeks after notification of admission. This deposit is not returnable, but is credited toward the first tuition payment. Failure to make this deposit within the time specified causes the applicant to forfeit his place in the Medical College.

# ADMISSION TO ADVANCED STANDING

When vacancies occur, students may be admitted to advanced

standing under the following conditions:

Applications for advanced standing should be filed according to procedure described for admission to the first year class, accepted applicants being required to make the same deposit of one hundred dollars. Applicants must furnish acceptable evidence of having completed the conditions of admission previously stated, and of having satisfactorily completed in an approved medical school all the work required of students of the class they desire to enter. They must also present a certificate of honorable dismissal from the medical school or schools they have attended.

Examinations may be required on any of the medical courses

taken in another school.

# **EXAMINATIONS AND PROMOTIONS**

I. Advancement.—Students are advanced in their course upon recommendation of the Committee on Promotion and Graduation which is composed of the heads of departments or their representatives responsible for the more important courses of each year. The quality of the work of each student is considered, usually at the end of each trimester. Students are notified whenever the Committee considers their work of poor quality, thus serving notice of the necessity for greater effort in order to carry successfully the work of the Medical College. No grades are given to students from the office of the college.

II. Examinations.—Examinations for advancement, graduation, and admission to advanced standing are held at the close of the academic year, except that in each course extending through a part of the year only, examinations may be held at the close of the course in

the hours allotted thereto.

Students who fail in more than 40 per cent of the required hours of the first year, or more than 30 per cent of the required hours of the subsequent years, must withdraw from the Medical College. Students failing in less than the number of hours prescribed above may be re-examined, but only after pursuing additional work, under the direction of the head of the department in which a failure has occurred, throughout at least one trimester or during a summer vacation.

Students who fail on re-examination are required to withdraw from the Medical College, unless under special circumstances they are permitted by the Committee on Promotion and Graduation to repeat courses in which failures have occurred. Students repeating any work may be forbidden by the Committee to take some of the courses they

would normally carry.

Any student whose quality of work or conduct indicates an unfitness to enter the profession of medicine may, at the discretion of the Faculty, be required at any time to withdraw from the Medical College.

# REQUIREMENTS FOR GRADUATION

The candidates for the degree of Doctor of Medicine must have attained the age of twenty-one years, and be of good moral character.

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They must have spent at least four years of study as matriculated medical students, the last of which must have been in the Cornell University Medical College. They must have satisfactorily completed all the required work of the medical curriculum, must have passed all prescribed examinations, and be free from indebtedness to the College. At the end of the fourth year every student who has fulfilled these requirements will be recommended to the President and Trustees of Cornell University for the degree of Doctor of Medicine.

# EXAMINATIONS FOR MEDICAL LICENSURE

Graduates of Cornell University are admitted unconditionally to the examinations for license to practice medicine in all states of the United States.

In New York State all requirements for admission to examinations for license should be filed with the State Education Department at least fifteen days before the examinations are held. In 1932 these examinations will be held February 1 to 4, June 27 to 30 and Sept. 19

to 22 at New York, Albany, Syracuse and Buffalo.

Students and graduates of the Cornell University Medical College are admitted to the examinations of the National Board of Medical Examiners, whose certificate is accepted by the Surgeons-General of the Army and Public Health Service of the United States and by the boards of medical licensure of thirty-nine states, Porto Rico, Hawaii and the Canal Zone. This Certificate is also recognized by the respective authorities of England, Scotland, Ireland and Spain. The dates and places of the examination will be announced as promulgated by the Board.

Graduates of the Cornell University Medical College are admitted to the final examinations for diploma of Licentiate of the Royal College of Physicians of London and Membership of the Royal College of Surgeons of England, upon presenting proper certificates that certain conditions applicable to the foreign universities and colleges, which are

recognized by the examining board, have been complied with.





# GENERAL INFORMATION

# FEES AND EXPENSES

All fees for instruction and other charges are paid to the Treasurer's Office of the Medical College.

An advance of \$100 on account of tuition is required of all applicants accepted for admission and is not returnable. At matriculation it is credited toward tuition.

Fees for special students and for students in the Graduate School of Cornell University are given under the sections describing the courses offered to these students.

All students entering the Medical College are required to provide themselves with satisfactory microscopes. The necessary books are conservatively estimated to cost about \$50.00 per year.

All students entering upon the study of Medicine should assure themselves that they can carry the financial burdens involved with reasonable certainty up to the time of graduation. It is very desirable that their financial arrangements be such that they will have their entire time and undivided interest during four years for the study of Medicine, and not be required to earn part of their living during this time. Although part time outside work is carried on by a number of students it is always a detriment to their medical studies.

# STUDENT HEALTH SERVICE

On entering the Medical College students adopt a different manner of living than that to which they have been accustomed during their college years. Their mental efforts are more strenuous, while their physical exercise is usually materially decreased. It is therefore important that every student should be in good physical condition when undertaking the study of Medicine, and that an effort be made to maintain a good state of health during the study of Medicine.

All members of the first year class and all students transferring from other colleges are required to undergo a thorough physical examination as soon as possible after entering the College. All students are re-examined yearly. Records of these examinations are kept, and students are advised concerning their physical condition and general health.

Two members of the medical staff are appointed physicians to the students, one of whom is a woman. They have regular hours at the Medical College and should be consulted by any student who feels in any way indisposed. The students pay no fees for this

service.

# SCHOLARSHIP AND LOAN FUNDS

- I. The John Metcalfe Polk Scholarship, a gift under the will of William Mecklenberg Polk, the first Dean of the Medical College, is awarded annually by the Faculty. The scholarship amounts to \$250.00 a year.
- 2. Cornell University Medical College Scholarships. By vote of the Council, scholarships amounting to \$500.00 a year are awarded from time to time.
- 3. The 1923 Loan Fund. This fund amounts to \$350.00 a year and is available as a loan to students needing financial assistance, preferably to a third year student.
- 4. CLINICAL RESEARCH SOCIETY LOAN FUND. A sum of \$200.00 has been provided by the Clinical Research Society and is available to fourth year students needing financial assistance, under conditions prescribed by the Society.
- 5. Get-Together Loan Fund. This fund has been collected by the students of the Medical College, and is available for a student of the third or fourth year class who is in need of immediate financial assistance.
- 6. THE THORNE SHAW SCHOLARSHIP FUND. This fund provides three scholarships designated as:

First: A scholarship of \$500 available to students after at least two years of study in the Medical College.

Second: Two scholarships of \$250 each available to students

after at least one year of study in the Medical College.

These scholarships are awarded by the Faculty upon nomination by

the Committee on Scholarships. They are awarded annually in June and are for one year only. Students receiving the scholarships are notified of the award at the end of the session, and public announcement is made at the opening of the subsequent session in September.

- 7. MARY F. HALL SCHOLARSHIP. The income, amounting to about \$150 annually, from a fund established by bequest of Miss Mary F. Hall is available to any woman student in the Cornell University Medical College who needs its aid and who is a bona fide resident of the State of New York and was such prior to admission to the College.
- 8. ALEXIS CRUTTENDEN MEDICAL SCHOLARSHIP. The income on the sum of \$5,000 is available as a scholarship to a student whose record indicates satisfactory scholarship and who otherwise meets the requirements. Those eligible are:

a) Descendants of Alexis Henry Cruttenden, M.D., of Bath,

New York.

b) Graduates of Haverling High School, residents of Bath, New York, who propose to study Medicine in Cornell University.

c) Residents of the town of Bath, New York. To qualify as a resident, an applicant or his parents or guardians shall have been *bona fide* residents of the town of Bath, New York, for a period of five years prior to the award of the scholarship.

Applications for loans should be made to the Secretary of Administration.

#### PRIZES

I. For general efficiency. In commemoration of John Metcalfe Polk, an Instructor in this College, who was graduated from the Medical Department of Cornell University on June 7, 1899, and died on March 29, 1904, an annual prize of \$500 will be presented at each Commencement to members of the Graduating Class who have pursued the full course of study in Cornell University Medical College.

This prize will be awarded as follows:

To the student having the highest standing	\$300
To the student having the second highest stand-	
ing	125
To the student having the third highest standing	75

II. For efficiency in Gynecology. In memory of William Mecklenburg Polk, M.D., LL.D., Dean and Professor of Gynecology in Cornell University Medical College from its establishment in 1898 until his death, June 23, 1918, an annual prize, established by Mrs. Polk, of \$250, to the three members of the Senior Class in order of merit, for obtaining especial distinction in the Department of Gynecology.

This prize will be awarded as follows:

To the student attaining the highest distinction.					
To the student attaining the second highest					
distinction	75				
To the student attaining the third highest dis-					
tinction	50				

- III. For efficiency in Otology. Two prizes, the first of \$50, the second of \$25, are offered by Professor Frederick Whiting to the two students of the graduating class who make the best records in the practical and theoretical work in Otology.
- IV. For efficiency in Obstetrics. Two prizes, the first of \$75, the second of \$25, have been endowed by an anonymous donor in recognition of the work of Dr. Gustav Seeligman in Obstetrics, to be given to the two students in the graduating class who have made the best records in the practical and theoretical work in Obstetrics.
- V. For efficiency in General Medicine. The income of \$1,000 is offered as a prize for general efficiency in the Department of Medicine, to be known as the Alfred Moritz Michaelis prize in General Medicine, in commemoration of Alfred Moritz Michaelis, who was graduated from the Medical Department of Cornell University on June 11, 1925, and who died during his interneship at Mt. Sinai Hospital, April 24, 1926. Presented at each Commencement to a member of the Graduating Class who has pursued the full course at Cornell University Medical College.
- VI. For efficiency in Research. In memory of William Mecklenburg Polk, M.D., LL.D., first Dean of the Medical College, the following prizes are offered to regularly matriculated students of the Cornell University Medical College:

I.	First Prize								\$200
2.	Second Prize.								50

The awards are made annually at the opening exercises of the Medical College in September for the best written reports of research work done by students, or for valuable reviews and logical presentations on medical subjects not to be found fully considered in a single text or reference book. If the papers submitted are not considered worthy of special commendation the prizes will be withheld.

Papers are submitted in quadruplicate in a sealed envelope marked, "Dean William Mecklenburg Polk Memorial Prize Committee," and must be in the Secretary's Office not later than the first day of September.

The Committee of Awards consists of two members of the Faculty from laboratory departments, and two from clinical departments.

# HOSPITAL APPOINTMENTS

Members of the graduating class of Cornell University Medical College are nominated for appointment to the staff of internes in the Cornell division of Bellevue and the New York Hospitals in accordance with the following general plan:

- 1. The list of available positions having been posted, members of the graduating class make application for such services as they desire, naming not less than two choices, and agreeing to accept the position if offered.
- 2. A committee of the Faculty determines the appointments from the list of candidates, basing the determination upon:
  - a. The student's standing during his first three years in Medical College.

b. The quality of his work in the hospital ward.

c. Personality and general fitness for the position desired.

The nominations thus made are subject to confirmation by the faculty of the Medical College and by the hospital. The Faculty expressly reserves the right to alter the method of appointment in any or all particulars, at any time, and without notice.

The students and graduates of the Cornell University Medical College are also expected to compete for positions on the resident staff

of other hospitals of the city.

The requirements, the times of examination, and the period of service differ. The details can be learned by application, written or in person, to the superintendents or to the secretaries of the medical boards of the various hospitals.

A record of the hospital appointments received by the graduating class is shown in the list of Graduates preceding the Student Reg-

ister at the end of the Announcement.

#### ALPHA OMEGA ALPHA

A chapter of this Medical Honor Society was established by charter in the Medical College in 1910. Not more than one-sixth of the students of the fourth year class are eligible for membership. This society has for its purpose the development of high standards of personal conduct and scholarship, and the encouragement of the spirit of medical research. Students are elected into membership on the basis of their scholarship, character, and originality.

# THE PLAN OF INSTRUCTION

The function of a Medical Department in a University is primarily to produce practitioners of medicine of the highest possible efficiency. The school must include among its students not only those whose life is to be spent in the treatment of disease, but those who intend to become teachers of medicine or of the branches of natural science upon which medicine depends, as well as those who devote their energies to advancing these sciences by research and to work connected with the public service. The Medical Department of the University has therefore developed into a school whose students are to be prepared to become practitioners of medicine and surgery, teachers of these subjects and their subsidiary branches, and investigators of biological problems which pertain to human disease and preventive medicine. To reach this ideal, and to relieve the Medical Department from instruction in subjects which belong to natural science in general and not strictly to the medical curriculum, it is necessary that the students should have received the best possible preliminary education which must include the mental training implied by the baccalaureate degree.

In arranging the course of study the subjects pertaining to pure, rather than applied, science are grouped in the first year of the medical course, those of applied science in the early part of the second year, and the so-called clinical subjects in the second, third and fourth

vears.

The fourth year of the medical curriculum is devoted largely to clinical instruction in the various aspects of medicine and surgery, with bedside instruction and ample opportunity for the careful study of cases by continuous service in the hospital wards. Some opportunity for elective courses is allowed, but all students must take at least the minimum amount of the subjects which form the basis of the general practitioner's usefulness, and all are thus necessarily prepared for the usual competition for appointments as hospital internes, positions in the public service of the State and Nation, and examinations for licensures by the States.

Any student of exceptional fitness, however, after having completed the first three years' work and who then desires to devote the major part of his time to one or more of the laboratory departments may do so during the fourth year. Such an arrangement can be made only with the approval of the Director and the heads of the departments concerned. The departments in which the student is engaged shall then determine whether his work has given such satisfaction as would

warrant the degree at the end of the year.

The extensive opportunity for continuous ward work afforded by

the curriculum of the third and fourth years in no wise replaces the valuable work afforded by hospital interneship, but is in a way preparatory thereto. Every graduate of this medical school is expected to pursue the usual interne service in some hospital, our graduates having little or no difficulty in obtaining the best positions under competitive examinations in addition to those appointments directly and indirectly controlled by this College. Without prolonged hospital training no physician should attempt to practice or to teach; and no specialist can be worthy of the name who lacks the broad foundation insured by such a service.

The details of the course are to be found in the Departmental An-

nouncements.

The Faculty expressly reserves the right to make alterations in the curriculum whenever advisable and without notice.

# SUMMARY OF REQUIRED HOURS

	COURSE	HOURS						
		First Year	Second Year	Third Year	Fourth Year			
1	ANATOMY							
	Histology and Embryology	258						
	Gross Anatomy	350						
	Neuro-Anatomy	88						
	Topographical Anatomy		36					
]	PHYSIOLOGY	165	153					
	CHEMISTRY	249						
]	PHARMACOLOGY		66	44				
]	PATHOLOGY		195	48				
	Pathological Anatomy		66	10				
]	BACTERIOLOGY		210					
1	MEDICINE		159	100	312			
	Therapeutics			11				
	Clinical Pathology			96				
9	SURGERY		93	157	312			
(	OBSTETRICS			86	98			
(	GYNECOLOGY			20	102			
]	PEDIATRICS			92	108			
]	NEUROLOGY			21	36			
	PSYCHIATRY			75				
1	UROLOGY		21	20				
1	DERMATOLOGY		21	32				
)	LARYNGOLOGY AND RHI-							
	NOLOGY		10	32				
	OPHTHALMOLOGY		31	12				
	OTOLOGY			15				
	ORTHOPEDIC SURGERY			22	36			
	RADIOLOGY		10	31				
	HYGIENE			150				
	MILITARY SCIENCE	30						
	ELECTIVES				240			
	mom	_						
	TOTALS	1,140	1,071	1,074	1,244			
	GRAND TOTAL—4,529 Hours.							

# THE DEPARTMENT OF ANATOMY

CHARLES R. STOCKARD, M.S., PH.D., M.D., Sc.D., Professor of

Anatomy.

CHARLES V. MORRILL, A.M., Ph.D., Associate Professor of Anatomy. George Papanicolaou, Ph.D., M.D., Assistant Professor of Anatomy.

Jose F. Nonidez, Sc.D., Assistant Professor of Anatomy.

PHILIP B. ARMSTRONG, B.S., M.D., Assistant Professor of Anatomy

LOUIS HAUSMAN, A.B., M.D., Associate in Neuro-Anatomy. WILLIAM L. SNEED, M.D., Instructor in Applied Anatomy.

Joseph L. Schwind, A.M., Ph.D., Instructor in Anatomy.

EMILIA M. VICARI, A.M., Associate in Anatomy.

SIMONE B. SCHWIND, Sc.D., Assistant in Anatomy.

VIRGIL A. MASON, A.B., A.M., Assistant in Anatomy.

#### I. MORPHOLOGY

Structure of Man.—This course considers the structure of the various organs and systems of the human body in the light of their variations and evolutions. The relationship of the parts, organs and systems is also explained by numerous facts gathered from experimental morphological studies on lower vertebrates.

The chief aim is to instill in the student the idea that animal structures are constantly changing and varying, yet are so definite as

to lend themselves to logical analysis.

Laboratory, 40 hours (elective), and demonstration conference, 22

hours (optional).

Reference Books.—Wiedersheim's Comparative Anatomy and Bau des Menschen, Wilder's History of Man, together with special works and monographs on the subject.

Professor STOCKARD.

#### II. EMBRYOLOGY AND HISTOLOGY

The work in *embryology* presupposes a general knowledge of the subject, particularly that of the early development of the chick. It embraces a thorough study of the development of the mammalian embryo in the light of our knowledge of the evolution of the human body. Malformations resulting from developmental disturbances are broadly considered. The course is closely correlated with that in gross anatomy.

The work in *bistology* includes the histogenesis and microscopic structure of all organs of the human body with the exception of the central nervous system (see *neuro-anatomy*). Emphasis is laid on the

relation of structure to function.

The tissues are studied principally by means of stained sections and tests are given for a rapid identification of their diagnostic features.





Demonstrations of living material are made and opportunities are offered for acquiring the essentials of histological technique.

A part of the course is devoted to seminars on current literature. Laboratory course and lectures—258 hours, October to March.

Required of all first-year students.

Assistant Professor Nonidez, Dr. Schwind and assistants.

Text-books.—Patten, Embryology of the Pig; Lewis and Bremer, Text-book of Histology; Schäfer, Essentials of Histology; Maximow, Text-book of Histology; Sobotta, Atlas of Histology.

# III. NEURO-ANATOMY

A laboratory course on the gross and microscopic anatomy of the human central nervous system. Especial emphasis is laid on the more important pathways and their functions.

Laboratory and demonstrations, 88 hours. Required of all first-year

students during the third term.

Assistant Professor Nonidez and Dr. Hausman.

Text-books.—Ranson, Anatomy of the Nervous System; Villiger's Brain and Spinal Cord; Herrick's Introduction to Neurology and any of the text-books of anatomy used in Course IV.

# IV. GROSS ANATOMY OF THE HUMAN BODY

This is taught by means of laboratory exercises and dissections held in the dissecting room at stated hours. The following are the courses required:

Course I. The Upper Extremity.

Course II. The Head and Neck.

Course III. The Lower Extremity.

Course IV. The Thorax.

Course V. The Abdomen and Pelvis.

The required work in each of the above courses includes: (a) Dissection of the part. (b) Demonstrations, study, and discussion upon dissected and prepared specimens, and from standard text-books.

Total laboratory hours, 350 (minimum). First and second terms of

the first year.

COURSE VI. A DEMONSTRATION COURSE. Optional for the first-year students. Demonstrations upon the cadaver, models and dissected preparations amplifying the courses in dissection during the first and

second terms of the first year.

COURSE VII. STUDY ROOM COURSE IN LIVE ANATOMY. Since the ultimate aim of dissection is to acquaint the student not merely with the arrangement of structures in the cadaver, but with the facts of the living body, this course follows as a natural sequence to the work of the dissecting room. Optional to first-year students.

Course VIII. Dissection Review. The work covers a repetition of

Courses I-V, giving an opportunity for advanced dissection. Optional

to students of the second, third or fourth year. Afternoons.

COURSE IX. TOPOGRAPHICAL ANATOMY.—A study of the relations and topography of the parts of the body by means of frozen sections. Cleared preparations and living models are also used. Members of the class must submit a number of drawings made from the sections.

Laboratory, 36 hours. Required during the first term of the second

year.

Professors Stockard, Morrill, Armstrong and assistants.

Text-books.—Cunningham's Manual of Practical Anatomy; Cunningham's Text-book of Anatomy; Spalteholz's Atlas of Human Anatomy; Morris' Human Anatomy; Gray's Anatomy; Piersol's Human Anatomy.

# V. APPLIED ANATOMY

This course is given during the second term of the third year. It is conducted as a laboratory exercise and aims to demonstrate the important facts of regional and topographical anatomy as applied to the practice of medicine and surgery.

Laboratory, 60 hours (optional).

Dr. Sneed and assistants.

Text-books.—Woolsey's, Applied Surgical Anatomy; Davis' Applied Anatomy.

# VI. ELECTIVE COURSES PREPARATORY TO THE SPECIALTIES

Optional for students of the third and fourth years. These courses offer a thorough review of the embryology, histology and gross anatomy of the following organs and systems:

- (a) The eye.
- (b) The ear.
- (c) The face and neck, including especially the nose and accessory sinuses, the mouth and salivary glands, pharynx and larynx, thyroid and parathyroid glands.

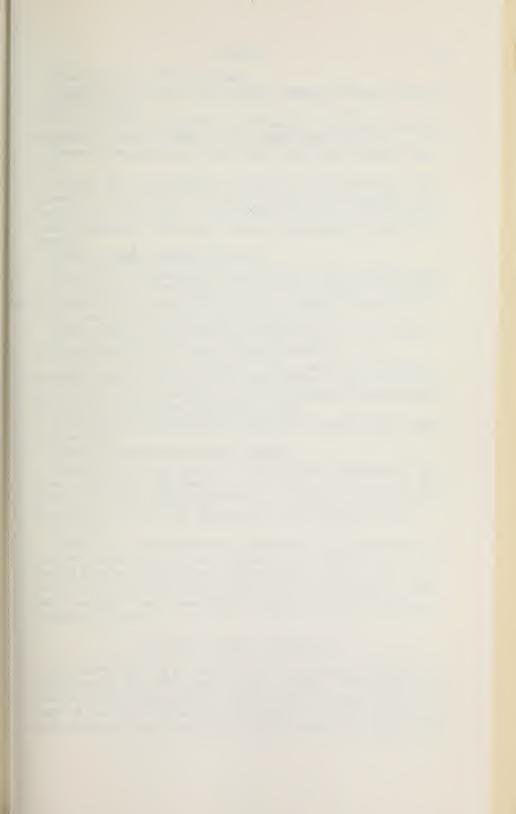
(d) The genito-urinary system, male and female.

- (e) The brain and spinal cord.
- (f) The thorax and abdomen.
- (g) The extremities, especially the joints and their mechanics.

Laboratory, 40 hours. Professor Stockard and instructors.

# VII. ELECTIVE COURSES FOR ADVANCED STUDENTS

COURSE I. GENERAL HISTOLOGY.—This course will comprise a study of the various types of tissues which form the several organs of the vertebrate body. The structures will be studied not only from the mere morphological standpoint, but the various biological problems involved will be taken into consideration. The close relationship between structure and function will be elucidated.





Twenty lectures, March to June.

Registration not later than January. Assistant Professor Nonidez and Dr. Schwind.

Course II. The Anatomy of the Infant.—A course of lectures amplified by demonstrations and the study of preparations.

Twenty demonstrations arranged for in advance. Professor Stock-

COURSE III. DEVELOPMENT ARRESTS AND STRUCTURAL DEFI-CIENCIES.—A discussion of the imperfections in development which may occur during various periods from the maturation of the germ cells, fertilization of the egg on through embryonic and fetal development.

Fifteen lectures. Professor Stockard.

Course IV. Experimental Embryology.—These lectures begin with the history of the subject and the various aspects of the problems concerned. The experimental analysis of embryological processes is then considered from the several points of view.

Twenty lectures with conferences considering the recent literature

of the subject. March to June. Professor Stockard.

Course V. Regional Anatomy.—This course will comprise a thorough review by means of dissections, demonstrations and reading of the gross anatomy, histology and development of selected regions of the body and of organs and organ systems.

Laboratory and demonstration, 3 half days a week for one month,

April or May.

Associate Professor Morrill and assistants.

Course VI. Applied Anatomy.—With special emphasis on fractures, dislocations, and injuries to the spine and extremities. The course will include eight conferences on Tuesdays and Thursdays from three until five P. M. beginning the first Tuesday in April.

Dr. Sneed.

COURSE VII. FOURTH-YEAR ELECTIVES.—The Department of Anatomy will arrange a schedule of work to fit individual cases for a limited number of fourth-year students desiring to devote the major part or all of their elective time. Such work will be designed, in cases where sufficient time is available, to equip the student to become a laboratory assistant.

#### VIII. ANATOMICAL RESEARCH

To students desiring to pursue research in anatomical subjects the equipment of the entire department is available. Members of the staff will gladly assign subjects and direct the progress of advanced work of this type. The work may be elected by students who enter with advanced credits, or by any student who has completed the

preliminary courses in descriptive anatomy, histology and embryology The course is also open to graduates in medicine or biology.

#### **SUMMARY**

		Second Year
Morphology*		
Embryology and Histology	258 hours	
Gross Anatomy	350 hours	
Topographical Anatomy		36 hours
Neuro-Anatomy	88 hours	
Applied Anatomy*		

<sup>\*</sup> Optional.

#### **PHYSIOLOGY**

Graham Lusk, Ph.D., Professor of Physiology.
Dayton J. Edwards, Ph.D., Associate Professor of Physiology.
McKeen Cattell, M.D., Assistant Professor of Physiology.
William H. Chambers, Ph.D., Assistant Professor of Physiology.
\*Dietrich Jahn, M.D., Assistant in Physiology.
Harold R. Meyers, Jr., M.S., Student Assistant in Physiology.
Alan L. Jacobs, A.B., Student Assistant in Physiology.

First Year.—Lectures, laboratory, recitations and a weekly seminar. Physiology of the muscle and nerve, the central nervous system, the special senses, digestion and internal secretions.

Second Year.—Lectures, laboratory, recitations and seminar. Physiology of the blood, circulation, respiration and metabolism.

#### SUMMARY

		Second Year
Lectures	44 hours	45 hours
Recitations	22 hours	18 hours
Seminar		9 hours
Laboratory	99 hours	81 hours

Text-books.—Starling's, Howell's or Macleod's Physiology; Lusk, Science of Nutrition; Wiggers, Circulation in Health and Disease; For Collateral Reading:—Scientific Journals.

### **CHEMISTRY**

STANLEY R. BENEDICT, Ph.D., Professor of Chemistry. WILLIAM H. SUMMERSON, A.B., Instructor in Chemistry. EMIL OSTERBERG, Instructor in Chemistry. JEANETTE ALLEN BEHRE, Ph.D., Instructor in Chemistry. ELEANOR B. NEWTON, A.M., Instructor in Chemistry. GERTRUDE GOTTSCHALL, A.B., Assistant in Chemistry. NATHAN F. BLAU, Ph.D., Research Associate in Chemistry.

<sup>\*</sup> Privatdozent, University of Munich, on leave of absence. Fellow of the Josiah Macy, Jr., Foundation.

The instruction in chemistry is concentrated in the first year, and is arranged upon the assumption that the student is already thoroughly grounded in the principles of chemistry and in physics. The object aimed at is to impart that fundamental knowledge of organic and physiological chemistry which is necessary to the comprehension of the bearings of chemistry upon physiology, pharmacology and medicine.

LECTURES.—There are three conferences a week during the first term on physical chemistry. The elements of the subject are presented with special emphasis upon the properties and reactions of colloids, and the theory of indicators. Roentgen and radium rays are also discussed.

During the second term two lectures a week are devoted to organic and physiological chemistry. The lectures discuss groups of compounds of especial biological importance, emphasizing especially the carbohydrates, purines, amino acids and the fats.

In the third term two lectures weekly are devoted to Physiological

Chemistry.

RECITATIONS AND CONFERENCES.—There is one recitation weekly during the second and third terms. These recitations are largely in the nature of conferences.

LABORATORY WORK.—During the first term there is one session weekly of two and one-half hours in physical chemistry. The experiments are designed to familiarize the student with the fundamental properties of electrolytes and colloids, and to study the phenomena of osmosis and dialysis. Methods of hydrogen ion determination are also studied.

In the second term there are two sessions weekly of two and one-half hours in organic and physiological chemistry. This work is directed mainly to the preparation and examination of organic compounds of biological importance, and furnishes practice on those

points in which laboratory manipulations are desirable.

During the third term there are two three-hour laboratory sessions in physiological chemistry. This course includes the study of the reactions of the carbohydrates, fats and proteins; of the composition of the salivary, gastric, pancreatic and intestinal secretions and the bile, and their actions in digestion; of the fæces, urine, blood and milk; and of the examination of pathological fluids, concretions, etc. The arrangement of this course is in coaptation with those in physiology and in clinical pathology.

In the laboratory courses each student is supplied with all apparatus

and chemicals required.

CHEMICAL PATHOLOGY.—Elective in the fourth year. A practical course in the chemical analysis of the blood. The laboratory work is

supplemented by informal lectures and discussions. Hours to be

arranged.

RESEARCH.—The laboratory is open during "optional hours" to students of any year who desire to prosecute advanced work or research, subject to the regulations of the office.

# SUMMARY

	First Year
Recitations	33 hours
Laboratory	150 hours
Lectures	

Text-books.—Hawk, Practical Physiological Chemistry, tenth edition; Cameron, Biological Chemistry. For Collateral Reading:—Mathews, Physiological Chemistry; Bodansky, Introduction to Physiological Chemistry; Sumner, Textbook of Biological Chemistry; Wells, Chemical Pathology; McCollum, Organic Chemistry, for students of Medicine and Biology.

# PHARMACOLOGY

ROBERT ANTHONY HATCHER, M.D., Professor of Pharmacology. HARRY GOLD, M.D., Ássistant Professor of Pharmacology. JANET TRAVELL, M.D., Instructor in Pharmacology.

Work in this department is offered during the second and third years.

#### PHARMACOLOGY

I. LABORATORY.—Sixty-six hours are devoted to the study of the

actions of drugs in the third trimester of the second year.

The experiments are designed to illustrate a wide range of pharmacologic actions, the more important drugs being considered with reference to their actions on different structures. Professor Hatcher and Drs. Gold and Travell.

II. Lectures.—Thirty-four hours are devoted to lectures, conferences and written reviews on Systematic Pharmacology in the first trimester of the third year. Professor Hatcher and Dr. Gold.

# MATERIA MEDICA AND PHARMACY

III. ELEMENTARY PHARMACY AND TOXICOLOGY.—Ten hours are devoted to the consideration of crude drugs, and making pharmacopæial preparations of the different pharmaceutical classes (such as extracts, pills, etc.) by the students. Each laboratory exercise is preceded by an informal discussion of the work to be done and its relation to therapeutics. Dr. Travell.

IV. Prescription Writing. Elective.—A course of about eleven

hours. Dr. Gold.





V. Research. Elective.—Students are encouraged to conduct original research under the supervision of the members of the staff. Such work affords a valuable insight into pharmacologic methods, and assists in the formation of a correct estimate of the original work of others.

#### **SUMMARY**

	Second Year	Third Year
Lectures and Conferences		
Laboratory	66 hours	10 hours

Text-books.—Sollman, A Text-book of Pharmacology; A Laboratory Guide in Pharmacology.

# DEPARTMENT OF PATHOLOGY

# GENERAL PATHOLOGY, PATHOLOGICAL ANATOMY, EXPERIMENTAL PATHOLOGY

James Ewing, M.D., Professor of Pathology.
Otto H. Schultze, M.D., Professor of Medical Jurisprudence.
Elise S. L'Esperance, M.D., Assistant Professor of Pathology.
Douglas Symmers, M.D., Assistant Professor of Pathological Anatomy.

JAMES DENTON, M.D., Assistant Professor of Pathology. LAWRENCE W. SMITH, M.D., Assistant Professor of Pathology.

FRED W. STEWART, M.D., Associate in Pathology.

CHARLES S. B. CASSASSA, M.D., Instructor in Pathological Anatomy.

Lewis D. Stevenson, M.D., Instructor in Neuro-Pathology. J. Frank Fraser, M.D., Instructor in Dermatopathology.

CHARLES T. OLCOTT, M.D., Instructor in Pathology.

GILBERT DALLDORF, M.D., Instructor in Pathological Anatomy. HENRY W. FERRIS, M.D., Instructor in Pathological Anatomy.

# GENERAL PATHOLOGY

FACILITIES.—The department of pathology occupies the main part of the fourth floor of the college building, in which are a class room and working museum, demonstration room for pathological anatomy with refrigerating plant, a preparation room for pathological histology, four private laboratory rooms for officers of the department, an animal hospital, and the library.

Pathological material is drawn from New York Hospital, Bellevue Hospital and the City Morgue, Memorial Hospital and other Hos-

pitals.

The museum contains a selected collection of 3,000 specimens illustrating most of the common and many rare pathological lesions. It is especially rich in lesions of bones and in tumors.

The histological cabinets contain about 20,000 slides arranged

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anatomically and cross-indexed for special diseases. There are also 600 sets of demonstration slides for undergraduate teaching purposes.

A volume is issued jointly by the Departments of Pathology, Bacteriology, and Hygiene, in which are collected the main studies coming from these laboratories. The Department of Pathology with the collaboration of heads of other departments conducts the work in Cancer Research of the Memorial Hospital, and at appropriate times issues reports of these studies.

Instruction.—The course of instruction in pathology begins in the first term of the second year, with lectures and gross and microscopic demonstrations, illustrating degeneration, inflammation, repair of tissues, and the infectious granulomas. At the same time the student observes the external phenomena of disease in demonstrations conducted by the Departments of Medicine and Surgery, reads about them in text-books, and prepares recitations on these topics. Coincidently, bi-weekly demonstrations of gross pathological material collected from autopsies are conducted. The introduction of each topic is made by individual demonstration of museum specimens followed by the study of microscopic sections. Further co-ordination of work is accomplished by having the course in bacteriology proceed at the same time. The second term is devoted to the special pathology of the organs and constitutional diseases. The third term is occupied with the subject of tumors. In the first term of the third year neuropathology, gynecological pathology and osteopathology are considered. Surgical pathology is taught in New York and Bellevue Hospitals in the third year in connection with ward classes.

Pathological Anatomy is continued through three terms of the course in general pathology, and in the third and fourth years the student witnesses or performs autopsies. Various elective courses are

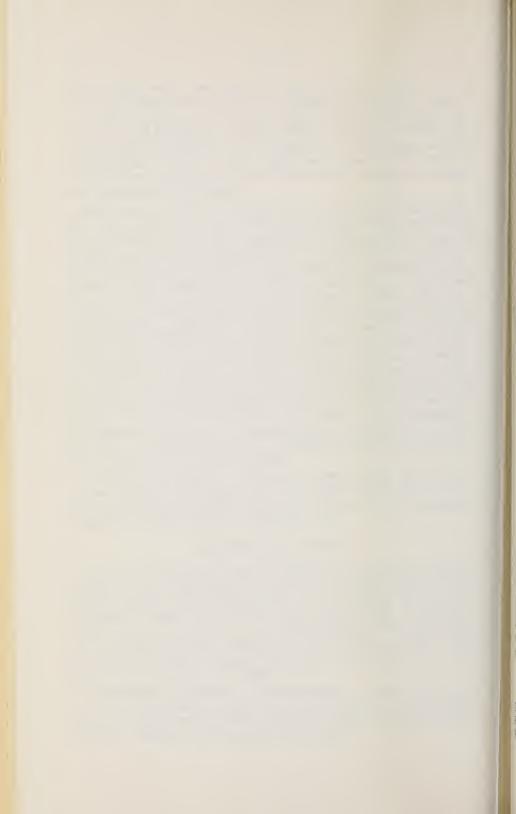
offered in the latter portion of the fourth year.

#### SYNOPSIS OF COURSES

General Pathology.—Lectures, gross and microscopical demonstrations in (a) Degeneration, Inflammation, Regeneration, Granulomas. Required in the first term of second year. (b) Special Pathology. Required in second term of second year. (c) Tumors. Required in third term of second year. (d) Osteopathology, Neuropathology, Gynecological pathology. Required in the first term of third year. 243 hours. Professors Ewing, L'Esperance, Smith and Denton and Drs. Olcott, Stevenson and Fraser.

PATHOLOGICAL ANATOMY.—Demonstrations of gross lesions in material collected from autopsies, gross pathological diagnosis, pathogenesis of symptoms and lesions. 66 hours. Required in second year Professor Schultze, Drs. Cassassa and Dalldorf.





AUTOPSY TECHNIQUE.—Section teaching at Morgue. Required in third year. Professor Symmers and staff.

Medico-legal Pathology.—The medico-legal relations of pathology are extensively illustrated in the material collected in the morgue and in the museum, and special attention is devoted to this subject in the third and fourth years. Professor Schultze, Drs. Cassassa and Dalldorf.

RECITATIONS, EXAMINATIONS.—Written recitations are conducted monthly throughout the year. Written and practical examinations are held at the end of the course.

ELECTIVES.—In the latter part of the fourth year the student may return to the laboratory and pursue advanced courses in several fields to be determined on consultation. The following courses are specifically recommended.

1. Pathological technique.

2. Tumor diagnosis and General Oncology.

3. Gynecological Pathology.

4. Dermatopathology.5. Neuropathology.

6. Surgical Pathology.

7. Special pathology and study of groups of cases with the production of a thesis.

Most of these elective courses will require the student's entire time for one to three months but may be continued into the summer.

Special Students and Special Degrees.—Opportunity is afforded to a limited number of students to engage in original research in selected topics under the direction of an instructor. The student must contract to devote his entire time, in the usual sense, to the pursuit of the problem, and the results of the work may be published under the auspices of the department. The work may be pursued in the college laboratories, in the Loomis Laboratory, at the New York Hospital, or at the Memorial Hospital in cancer research.

Under the conditions laid down in the Graduate School of Medicine, the student may obtain the degree of M.S., after one year, or Ph.D. after at least three years of study in Pathology. The completion of an original thesis is required for these degrees, and they are granted only

to graduates in Medicine.

## SUMMARY

	Second Year		
General and Special Pathology	195 hours	48 hours	
Pathological Anatomy	66 hours	10 hours	
Autopsy Technics			Variable

# BACTERIOLOGY

WILLIAM J. ELSER, M.D., Professor of Bacteriology and Immunology. ARTHUR F. Coca, M.D., Professor of Immunology.

ROBERT A. COOKE, M.D., Assistant Professor of Applied Immunology. George W. Wheeler, M.D., Assistant Professor of Bacteriology.

ELLA F. GROVE, Instructor in Immunology.

RUTH A. THOMAS, C.P.H., Instructor in Bacteriology.
GUSTAV I. STEFFEN, Ph.D., Instructor in Bacteriology.
WILL C. SPAIN, M.D., Instructor in Applied Immunology.
MATHEW WALZER, M.D., Instructor in Applied Immunology.
ELIZABETH WATSON, A.M., Assistant in Bacteriology.

# I. BACTERIOLOGY

The subject is taught in the second year in two parts. Part I includes the preparation of culture media, the principles of sterilization and disinfection, the methods of isolation and differentiation of bacterial species and a study of their bio-chemical behavior. Part II includes a detailed study of the pathogenic bacteria; special attention being paid to their relation to diseases of man. This work is supplemented by lectures and conferences dealing with the theoretical phases of bacteriology and immunology.

# II. IMMUNOLOGY

A laboratory and didactic course is given to second year students in two sections following the course in bacteriology. This course is designed primarily to familiarize the student with the fundamental immunological and serological principles, as well as the technic involved in the recognized clinical and forensic application of those principles, viz., the Widal, precipitin, Wassermann, von Pirquet, Schick, and Dick tests; the standardization of antitoxins; the grouping of human individuals with respect to isohemagglutinins; and the cutaneous test for atopic hypersensitiveness (asthma and hay fever).

# III. APPLIED IMMUNOLOGY

An elective clinical course in applied immunology is offered to fourth year students. This course consists of the practical study of various forms of hypersensitiveness in man, ample material for which is provided in the special clinic, two evenings (4 hours) for one week at the New York Hospital.

#### SUMMARY

	Second Year	Fourth Year
Bacteriology		
Immunology	50 hours	elective

# PUBLIC HEALTH AND PREVENTIVE MEDICINE

JOHN C. TORREY, Ph.D., Professor of Public Health and Preventive Medicine.

Walter C. Klotz, M.D., Assistant Professor of Public Health and Preventive Medicine.

MORTON C. KAHN, Ph.D., Assistant Professor of Public Health and Preventive Medicine.

RALPH W. NAUSS, M.D., D.P.H., Instructor in Public Health and Preventive Medicine.

Instruction in some of the many branches of hygiene and preventive medicine is given in connection with certain of the courses pursued in the several departments of Bacteriology, Chemistry, Physiology,

Pathology and Medicine.

The more distinctive features of this subject, however, are presented in a course of lectures and demonstrations extending throughout the third year and dealing with the subjects of Sanitation, Epidemiology, Preventive Medicine and Public Health Administration. A certain amount of laboratory work is required of each student in the first term. In addition, time has been allotted for field work through which the student may acquire experience in making sanitary surveys and visit localities in the vicinity where the practical application of sanitary devices and hygienic methods may be observed. Each student is required to prepare a short thesis on some aspect of public health work.

It is also the aim of the department to take full advantage of the opportunities offered by the Clinic for instruction in the preventive aspects of medicine. Such close correlation is facilitated through the fact that an Assistant Professor is also Director of the Cornell Clinic.

The laboratory is open to properly qualified students of the third or fourth years who may desire to pursue original investigations under the direction of the staff and in accordance with the regulations of the college office.

# **SUMMARY**

	Third Year
Lectures and Conferences	78 hours
Laboratory Work	36 hours
Field Work	36 hours*

Text-books.—Rosenau, Preventive Medicine and Hygiene; Park, Public Health and Hygiene.

Collateral Reading.—MacNutt, Manual for Health Officers; Vaughan, Epidemiology and Public Health; Chandler, Animal Parasites and Human Disease.

<sup>\*</sup> Eleven afternoons are assigned for field experience.

## **MEDICINE**

LEWIS A. CONNER, M.D., Professor of Medicine. G. CANBY ROBINSON, M.D., Professor of Medicine. EUGENE F. DuBois, M.D., Professor of Medicine. WALTER L. NILES, M.D., Professor of Clinical Medicine. NELLIS B. FOSTER, M.D., Associate Professor of Medicine. WILLIAM C. THRO, M.D., Professor of Clinical Pathology. ALEXANDER LAMBERT, M.D., Professor of Clinical Medicine. MALCOLM GOODRIDGE, M.D., Professor of Clinical Medicine. JOHN W. CHURCHMAN, M.D., Professor of Experimental Therapeutics. HENRY B. RICHARDSON, M.D., Assistant Professor of Medicine. WILLIAM S. LADD, M.D., Assistant Professor of Medicine. Russell L. Cecil, M.D., Assistant Professor of Clinical Medicine. ARTHUR L. HOLLAND, M.D., Assistant Professor of Clinical Medicine. RALPH G. STILLMAN, M.D., Assistant Professor of Clinical Pathology. CARY EGGLESTON, M.D., Assistant Professor of Clinical Medicine. HAROLD E. B. PARDEE, M.D., Assistant Professor of Clinical Medicine. CONNIE M. GUION, M.D., Assistant Professor of Clinical Medicine. HARRY A. BRAY, M.D., Lecturer on Tuberculosis. ALICE R. BERNHEIM, M.D., Associate in Medicine. JOHN H. RICHARDS, M.D., Instructor in Medicine. DAN H. WITT, M.D., Instructor in Medicine. HORACE S. BALDWIN, M.D., Instructor in Medicine. CHARLES H. NAMMACK, M.D., Instructor in Medicine. ASA L. LINCOLN, M.D., Instructor in Medicine. PAUL REZNIKOFF, M.D., Instructor in Medicine. EDWIN T. HAUSER, M.D., Instructor in Medicine. NORMAN PLUMMER, M.D., Instructor in Medicine. EVELYN HOLT, M.D., Instructor in Medicine. EPHRAIM SHORR, M.D., Instructor in Medicine. KIRBY MARTIN, M.D., Instructor in Medicine. HENRY J. SPENCER, M.D., Instructor in Medicine. ROBERT O. LOEBEL, M.D., Instructor in Medicine. HAROLD S. BELCHER, M.D., Instructor in Clinical Medicine. LAILA COSTON CONNER, M.D., Instructor in Clinical Medicine. Louis A. Hauser, M.D., Instructor in Clinical Medicine. EDMUND R. P. JANVRIN, M.D., Instructor in Clinical Medicine. BERTON LATTIN, M.D., Instructor in Clinical Medicine. LEON I. LEVINE, M.D., Instructor in Clinical Medicine. ANNA PLATT, M.D., Instructor in Clinical Medicine. Douglass Palmer, M.D., Instructor in Clinical Medicine.

SYDNEY WEINTRAUB, M.D., Instructor in Clinical Medicine. HARRY BERKOFF, M.D., Instructor in Clinical Medicine. MICHAEL LAKE, M.D., Instructor in Clinical Pathology. WINIFRED KIRK, M.D., Instructor in Clinical Medicine. MALCOLM K. SMITH, M.D., Instructor in Clinical Medicine. EDWARD TOLSTOI, M.D., Instructor in Clinical Medicine. HARRIET WHITE, M.D., Instructor in Clinical Medicine. JANETTE JENNISON, M.D., Instructor in Clinical Medicine. HERMAN PHILIPP, M.D., Instructor in Clinical Medicine. JAMES H. WHALEY, JR., M.D., Instructor in Clinical Medicine. MORRIS DREYFUSS, M.D., Instructor in Clinical Pathology. JULIETTE BÉRNAT, M.D., Instructor in Clinical Medicine. FRANK M. FALCONER, M.D., Instructor in Clinical Medicine. EMIL A. FALK, M.D., Instructor in Clinical Medicine. SCOTT JOHNSON, M.D., Instructor in Clinical Medicine. MAURICE KAGAN, M.D., Instructor in Clinical Medicine. CHARLES KAUFMAN, M.D., Instructor in Clinical Medicine. VICTOR W. LOGAN, M.D., Instructor in Clinical Medicine. THERESA SCANLAN, M.D., Instructor in Clinical Medicine. MARIAN TYNDALL, M.D., Instructor in Clinical Medicine. W. Brooks Vance, M.D., Instructor in Clinical Medicine. JOSEPH YASWEN, M.D., Instructor in Clinical Medicine. JEAN A. CURRAN, M.D., Instructor in Clinical Medicine. DOROTHEA LEMCKE, M.D., Instructor in Clinical Medicine. ROBERT M. LINTZ, M.D., Instructor in Clinical Medicine. ISABEL LONDON, M.D., Instructor in Clinical Medicine. A. PARKS McCombs, M.D., Instructor in Clinical Medicine. NORMAN PAPAE, M.D., Instructor in Clinical Medicine. MILTON HELPERN, M.D., Instructor in Clinical Medicine. AARON D. SPIELMAN, M.D., Instructor in Clinical Medicine. BRUCE WEBSTER, M.D., Instructor in Clinical Medicine. WENDELL J. STAINSBY, M.D., Instructor in Clinical Medicine. Edith E. Nicholls, M.D., Instructor in Clinical Medicine.

The course in Medicine is begun in the first trimester of the second year and is continued through the second, third and fourth years. Instruction is given by means of didactic lectures, laboratory exercises, amphitheatre clinics, conferences, section classes in hospital wards and in the College Clinic and clinical clerkships in the wards of Bellevue and New York Hospitals.

#### SECOND YEAR

INTRODUCTORY CLINICS.—The subject of Medicine is introduced in the first trimester by a series of elementary clinics given at the New

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York Hospital by Professors Conner and Foster. These clinics are designed to acquaint the student with the simpler and more obvious aspects of important and common types of diseases and to stimulate in him the habit of observation. In Bellevue Hospital during the same period a course in Pathological Physiology consisting of lectures and illustrative clinics is given by Professors DuBois, Richardson, and Cecil. The exercises are intended to bridge the gap between the course in Physiology and that in Medicine and to emphasize the importance of the changes in function which occur in disease.

In the third trimester clinics are held in the Amphitheatre of Belle-

vue Hospital by Professor DuBois and his associates.

Seminars.—A systematic study of the subject of internal medicine by means of conferences, conducted by Professor DuBois and Drs. Witt, Holt and Loebel, is begun in the second trimester and is continued throughout the year. The topics considered are co-ordinated, as far as possible, with the clinics given in Bellevue Hospital.

Physical Diagnosis.—During the first trimester the principles of Physical Diagnosis are presented in lectures and demonstrations by Dr. Pardee and the students are instructed in the various methods of physical examination. In the second trimester the student is given opportunity to practise physical diagnosis by the examination of patients in the wards of the New York and Bellevue Hospitals. The Class is divided into small sections and the bedside teaching conducted by Drs. Pardee, Nammack, Baldwin, Hauser and Martin, under the direction of Professor Foster.

#### THIRD YEAR

LECTURES.—During the first and second trimesters one lecture a week is given by Professor Conner upon the general symptomatology of disease. Each of the commoner and more important symptoms is considered in detail with special reference to the physiological processes involved.

Physical Diagnosis.—This subject is continued in the third year during the second and third trimesters. The Class is divided into small groups, each of which in turn is assigned to service in the medical department of the College Clinic. Each student under careful supervision of an instructor is expected to take histories and to make and record physical examinations. This course is under the direction of Professor Guion.

CLINICS.—In the first and third trimesters general medical clinics are held once a week in the College Amphitheatre by Professor Conner. At the Clinics are presented such ambulatory types of medical diseases as are usually not seen in the hospital wards.

Seminars.—The systematic study of medicine by means of conferences, begun in the second year, is continued during the three

trimesters of the third year. These seminars are conducted by Professor Richardson and Drs. Richards, Guion and Shorr and the subjects considered are co-ordinated, as far as possible, with the clinics of Professor Conner.

THERAPEUTICS.—Instruction in therapeutics, under the charge of Professor Goodridge and Dr. Lincoln, is given in the form of lectures and conferences, during the third trimester of the third year, and practical demonstrations in the wards of Bellevue Hospital during the period of clinical clerkship in the fourth year. For one-half of this period (two weeks) especial emphasis is laid upon treatment and the student receives practical instruction in the use of the more important drugs and in the various other therapeutic procedures.

CLINICAL PATHOLOGY.—The introductory required course, under the charge of Professor Thro, is given in the first trimester of the third year. It consists of ninety-six hours of lectures and laboratory work. This time is devoted to the teaching and the practical application of methods for the examination of urine, blood and blood serum, sputum, exudates and transudates, spinal fluid, gastric contents, fæces, and for the bacteriological examination of clinical material.

During the remainder of the third year and in the fourth year the students perform laboratory tests on patients assigned them in the clinics and hospitals, where they are supervised by instructors in the

Department of Medicine.

In the latter part of the fourth year students have an opportunity to elect work in Clinical Pathology.

#### FOURTH YEAR

CLINICAL CLERKSHIPS.—The time allotted to medicine in the last year is devoted entirely to practical work in the wards of New York and Bellevue Hospitals and to elective subjects. Each student is required to serve for a period of two months as clinical clerk in the medical wards; the time being divided equally between New York and Bellevue Hospitals, During this period his entire day is spent in the wards and clinical laboratories. A certain number of patients are assigned for study to each student. Under careful supervision he takes the histories, makes physical examinations, performs the various necessary laboratory examinations and records the progress of the cases. He is expected to be present at all post-mortem examinations and to attend the clinical pathological conferences. Each afternoon teaching rounds for the entire group on duty are made by some member of the Attending Staff.

At the New York Hospital, in addition to the routine ward teaching by Professors Conner and Foster, a weekly conference by Professor Foster is held with the group upon disorders of metabolism and their treatment, as exemplified by cases in the wards; a course of eight 68 Cornell

periods on the fluoroscopic investigation of the gastro-intestinal tract is given by Dr. Holland; a part of one afternoon of each week is devoted by Dr. Pardee to the study of cardiac arhythmias and the interpretation of electrocardiographic and polygraphic records and by

Professor Samuels to medical ophthalmoscopy.

At Bellevue Hospital, in addition to the routine ward teaching by Professors DuBois, Niles, and Goodridge, a clinical pathological conference and a medical clinic are held once a week. At the latter, cases presented by the student clerks are discussed by the staff and the results of experimental work done by the research members of the staff are demonstrated in connection with the cases studied. During this period also the students spend four afternoons in the wards of the Tuberculosis Division where, through the courtesy of Dr. James Alexander Miller, Visiting Physician in charge, they receive instruction together with students from the College of Physicians and Surgeons.

ELECTIVE STUDIES.—The latter part of the fourth year is available for elective work. For courses offered see page 88.

Graduate Study and Research.—The clinics and laboratories of Bellevue and New York Hospitals are available for special study and research to a limited number of physicians possessing suitable training.

Bellevue Hospital Clinic.—The Russell Sage Institute of Pathology is especially equipped for the investigations of problems of metabolism. The calorimeter is operated in conjunction with a metabolism ward and there is a chemical research laboratory for the study of problems connected with respiration and the gases of the blood.

NEW YORK HOSPITAL CLINIC.—The clinical laboratory and chemical laboratory are closely allied with the wards and offer excellent facilities for the study of the chemical aspects of disease. Special lines of research may also be carried on in the serological and bacteriological laboratories of the Hospital in conjunction with clinical observation in the wards. These laboratories have been used notably in the study of the anaemias, nephritis, and protein sensitization.

## SUMMARY

#### MEDICINE

	Second Year	Third Year	Fourth Year
Lectures	12 hours	33 hours	
Seminar	21 hours	33 hours	
Clinics	82 hours	35 hours	
Clinical Clerkships			312 hours
Sections		10 hours	
Clinical Pathology		96 hours	





## SURGERY

CHARLES L. GIBSON, M.D., Professor of Surgery.

JOHN A. HARTWELL, M.D., Associate Professor of Surgery.

HENRY H. M. LYLE, M.D., Assistant Professor of Surgery.

Burton J. Lee, M.D., Professor of Clinical Surgery.

James Morley Hitzrot, M.D., Professor of Clinical Surgery.

ALFRED S. TAYLOR, M.D., Professor of Clinical Surgery.

Pol Coryllos, M.D., Professor of Clinical Surgery and Research Associate in Surgery.

JOSHUA E. SWEET, M.D., Professor of Surgical Research. CHARLES E. FARR, M.D., Professor of Clinical Surgery.

JOHN C. A. GERSTER, M.D., Assistant Professor of Clinical Surgery.

Guilford S. Dudley, M.D., Assistant Professor of Clinical Surgery.

RALPH G. STILLMAN, M.D., Assistant Professor of Clinical Pathology.

MORRIS K. SMITH, M.D., Assistant Professor of Clinical Surgery.

BYRON STOOKEY, M.D., Assistant Professor of Clinical Surgery.

Russel H. Patterson, M.D., Assistant Professor of Clinical Surgery.

Armand J. Quick, M.D., Research Associate in Surgery.

JOHN E. SUTTON, JR., M.D., Research Associate in Surgery and Instructor in Clinical Surgery.

LEILA C. KNOX, M.D., Instructor in Surgical Pathology.

ABRAHAM J. BELLER, M.D., Instructor in Operative Surgery.

JOSEPH E. J. KING, M.D., Instructor in Surgery.

W. Morris Weeden, M.D., Instructor in Surgery.

NELSON W. CORNELL, M.D., Instructor in Surgery.

HERBERT BERGAMINI, M.D., Instructor in Clinical Surgery.

WOODHULL C. CONDICT, M.D., Instructor in Operative Surgery.

WILLIAM V. HEALEY, M.D., Instructor in Operative Surgery.

Walter Stenson, M.D., Instructor in Operative Surgery.

EDWARD W. SAUNDERS, M.D., Instructor in Clinical Surgery and Research Assistant in Surgery.

PRESTON A. WADE, M.D., Instructor in Surgery and Research Assistant in Surgery.

HENRY S. F. COOPER, M.D., Instructor in Clinical Surgery.

JACOB BUCKSTEIN, M.D., Instructor in Gastro-intestinal Radiology.

HENRY W. FERRIS, M.D., Instructor in Pathology.

EUGENE BOZSAN, M.D., Instructor in Operative Surgery.

Francis A. Sutherland, M.D., Instructor in Clinical Surgery.

EARL D. BREWER, M.D., Instructor in Surgical Pathology.

FLORENCE WEST, A.B., Research Assistant in Surgery.

Wade Duley, M.D., Assistant in Surgery and Research Assistant in Surgery.

D. Rees Jensen, M.D., Assistant in Surgery.
John Staige Davis, M.D., Research Assistant in Surgery.
George L. Birnbaum, M.D., Research Assistant in Surgery.
Hubert B. Holsinger, M.D., Research Assistant in Surgery.
Rose André, M.D., Assistant in Surgery.
Mary Cooper, B.S., Research Assistant in Surgery.
Penelope Marsh, A.B., Bacteriologist, Department of Surgery.

SECOND YEAR. The introductory course in surgery consists of a series of lectures and recitations, clinics and sections in Bellevue and St. Mary's Hospitals.

THIRD YEAR. Recitations are continued upon regional surgery; the class is instructed in sections at St. Luke's Hospital in history taking and methods of surgical examination and diagnosis, three hours a week for one term, and four and a half hours a week at Memorial Hospital in neoplasms.

In the second and third terms clinics for the whole class are held weekly at New York and St. Luke's Hospitals. Twenty-three lectures are given by the Professors of Surgery.

A Fracture Course consisting of eleven lectures and demonstrations is given under the direction of Drs. Hitzrot, Smith and Cornell.

A course in Operative Surgery, in charge of Dr. John C. A. Gerster, consists of recitations and operative work on the cadaver. Each member of the class performs all the principal operations.

FOURTH YEAR. Students spend eight weeks as clinical clerks in the wards of the New York and Bellevue Hospitals. They also receive clinical instruction in small groups in several hospitals and dispensaries on the special branches of gynecology and orthopedics. In the last two months all the work is purely elective and the students may supplement their work in surgery by clinical and laboratory electives.

#### HOSPITAL WORK

The Cornell University Medical College through its control of the First Surgical Service of the New York Hospital, the Second Surgical Division of the Bellevue Hospital, the Memorial Hospital and with clinical privileges at St. Luke's and St. Mary's Hospitals, possesses every facility necessary for the efficient teaching of practical surgery and surgical pathology.

The Staff of Instruction of the New York Hospital is at present organized as follows:

# NEW YORK HOSPITAL, CORNELL (FIRST SURGICAL) DIVISION

James M. Hitzrot, M.D., Professor of Clinical Surgery, Attending Surgeon.

CHARLES E. FARR, M.D., Professor of Clinical Surgery, Associate Attending Surgeon.

RALPH G. STILLMAN, M.D., Assistant Professor of Clinical Pathology, Assistant Director Department of Pathology.

LAWRENCE SMITH, M.D., Assistant Professor of Pathology, Research Pathologist.

George W. Wheeler, M.D., Assistant Professor of Bacteriology, Bacteriologist.

W. Morris Weeden, M.D., Instructor in Surgery, Assistant Attending Surgeon.

Nelson W. Cornell, M.D., Instructor in Surgery, Assistant Attending Surgeon.

HENRY W. FERRIS, M.D., Instructor in Pathology, Pathologist.

CHARLES T. OLCOTT, M.D., Instructor in Pathology, Assistant Pathologist.

Preston A. Wade, M.D., Instructor in Surgery, Deputy Assistant Attending Surgeon and Anesthetist.

WADE DULEY, M.D., Assistant in Surgery, Deputy Assistant Attending Surgeon Out Patient Department.

D. REES JENSEN, M.D., Assistant in Surgery, Deputy Assistant Surgeon Out Patient Department.

The division consists of about 60 surgical beds and a variable proportion of the children's service. The service is acute in character, and is particularly rich in the graver emergency and traumatic material.

Attached to this division is a Dispensary (Tuesday, Thursday and Saturday mornings) which furnishes valuable material for instruction and includes departments in orthopedics, gynecology and dental surgery.

The resources of the Pathological Department under Professor Elser afford valuable opportunities for the study of surgical pathology, and an intimate connection between the two departments is maintained.

Instruction consists of bedside instruction, diagnosis clinics, operative and post-operative clinics, practical instruction in sections (with utilization of the Dispensary clinical material) and clinical clerkships.

FOURTH YEAR CLERKSHIPS.—Each section of students, for four weeks, is subdivided into four smaller groups and the course is planned to give a rotating service changing weekly. The work of the students is similar to that of the junior internes but is carried out under careful supervision. In addition, instruction is given by members of the at-

tending staff, the staffs of the pathological laboratory and of the

out patient department in special work.

All patients in the hospital service are assigned to the student groups and they become responsible for all the histories, physical examinations, laboratory investigations and observations on treatment and convalescence after operation.

A special course in Surgical Pathology is given on three days a week

by Doctors Smith and Olcott.

Students are urged to write a short paper during the course preferably on some case or subject studied during their clerkship.

# BELLEVUE HOSPITAL, CORNELL (SECOND SURGICAL) DIVISION

Guilford S. Dudley, Assistant Professor of Clinical Surgery, Director of Second Surgical Division.

JOHN A. HARTWELL, M.D., Associate Professor of Surgery, Consulting Surgeon.

GEORGE WOOLSEY, M.D., Professor of Clinical Surgery Emeritus, Consulting Surgeon.

JOHN ROGERS, M.D., Professor of Clinical Surgery Emeritus, Visiting

Surgeon.

ELISE S. L'ESPERANCE, M.D., Assistant Professor of Pathology, Surgical Pathologist.

Russel H. Patterson, M.D., Assistant Professor of Clinical Surgery, Visiting Surgeon.

BYRON S. STOOKEY, M.D., Assistant Professor of Clinical Surgery, Associate Visiting Surgeon (Neurology).

JOSEPH E. J. KING, M.D., Instructor in Surgery, Associate Visiting Surgeon (Neurology).

HERBERT BERGAMINI, M.D., Instructor in Clinical Surgery, Associate Visiting Surgeon.

JOHN E. SUTTON, M.D., Instructor in Clinical Surgery, Associate Visiting Surgeon.

HENRY S. F. COOPER, M.D., Instructor in Clinical Surgery, Surgeon to Out Patients and Assistant Visiting Surgeon.

Edward W. Saunders, M.D., Instructor in Clinical Surgery, Surgeon to Out Patients and Assistant Visiting Surgeon.

Francis A. Sutherland, M.D., Instructor in Clinical Surgery, Surgeon to Out Patients and Assistant Visiting Surgeon.

JACOB BUCKSTEIN, M.D., Instructor in Gastro-intestinal Radiology, Assistant Radiologist.

EARL D. Brewer, M.D., Instructor in Surgical Pathology, Pathologist.

ROBERT K. Felter, M.D., Assistant in Clinical Surgery, Surgeon to Out Patients and Assistant Visiting Surgeon.

Penelope Marsh, Bacteriologist, Department of Surgery, Surgical Bacteriologist.

The Division consists of 90 surgical beds in addition to those devoted to genito-urinary diseases and gynecology, the hospital instruction in which is outlined under the respective departments.

The hospital interne staff performs the routine duties of the wards and is assisted in history taking, dressing, etc., by the surgical clerks, who spend their entire day in the wards during their period of clerkship, these privileges being extended exclusively to the students of the Cornell University Medical College.

Surgical Clerkships.—Intensive teaching is done under this head in the surgical wards of Bellevue Hospital during the fourth year. The students are assigned in sections for four weeks each. They are under the direction of the Surgical Director, aided by the corps of instructors.

Each student devotes his entire day to the work continuously for four weeks. He is assigned to the study of a certain number of patients, and is enabled to follow the complete course of the disease from the admission of the patient to his discharge. In the event of death he is present at the autopsy should one be performed.

In this way the student has an opportunity to follow to a conclusion a large number of surgical affections, and he is instructed in the proper methods of surgical history taking, surgical physical examination, surgical dressings, and operative surgery as seen at the operating table. He is also instructed in the laboratory study, including bacteriology, of the blood, urine, fæces, exudates, and transudates. This laboratory work is done under the direction of the staff in the laboratories connected with the hospital, and is under the immediate charge of the Surgical Pathologist to the Division. Each student spends 24 hours in the pathological laboratory, where he is instructed in a series of lesions illustrating the cases under his observation.

By this method of instruction, each student comes into intimate contact with surgical patients, and is required to make a complete study of each one from every standpoint. He has constantly at his service two or more of the teaching staff to guide him in his work, and impress on him the proper methods of observation and study.

#### SUMMARY

	Second Year	Third Year	Fourth Year
Lectures	12 hours	32 hours	
Recitations. Clinics.	12 hours	54 hours	

	Second Year	Third Year	Fourth Year
Sections	12 hours	15 hours	
Operative Surgery		40 hours	
Clinical Clerkships			312 hours Variable
Elective			Variable

Text-books.—Babcock, Text-book of Surgery; Ashurst's Text-book of Surgery; Rose and Carles, Surgery; Choyce, A System of Surgery, 2d Edition; Gould, Surgical Diagnosis; Nelson's Loose Leaf Surgery.

Collateral Reading.—Lexer-Bevan, General Surgery; Stimson, Fractures and Dislocations; Garre and Borchard, Lebrbuch der Chirurgie; Da Costa, Text-book of Surgery; Bickham, Operative Surgery; Lewis, Practice of Surgery; Juilly, Practical Surgery of the Abdomen; Walton, Surgical Diagnosis; Graham, Surgical Diagnosis; Homans, Text-book of Surgery.

# OBSTETRICS AND GYNECOLOGY

George Gray Ward, M.D., Professor of Obstetrics and Gynecology. Lilian K. P. Farrar, M.D., Assistant Professor of Obstetrics and Gynecology.

HERVEY C. WILLIAMSON, M.D., Assistant Professor of Obstetrics and

Gynecology.

JOHN F. McGrath, M.D., Instructor in Obstetrics and Gynecology. Howard S. McCandlish, M.D., Instructor in Obstetrics and Gyne-

cology.

OGDEN F. CONKEY, M.D., Instructor in Obstetrics and Gynecology. WILLIAM P. DRISCOLL, M.D., Instructor in Obstetrics and Gynecology. LYNN L. FULKERSON, M.D., Instructor in Obstetrics and Gynecology. JOSEPH N. NATHANSON, M.D., Instructor in Obstetrics and Gynecology.

CHARLES T. SNYDER, M.D., Instructor in Obstetrics and Gynecology.

GRETA STÖHR, M.D., Instructor in Gynecological Pathology.

#### **OBSTETRICS**

Instruction in obstetrics is given during the third and fourth years by recitations, lectures, manikin practice, ward section work, clinics and conferences, laboratory instruction, and attendance upon cases of confinement.

THIRD YEAR—First Term.—Recitations in sections are held by the instructors on the physiology of pregnancy, the mechanism of labor and the care of the woman during the lying-in period. Definite assignments of study from a standard text-book are made.

12 hours.

Lectures are given by Professor Williamson which are illustrated by lantern slides and the exhibition of specimens and methods, and deal

als.

with the problems of menstruation, ovulation, embryology and the physiology of early pregnancy and the puerperium. The principles of the hygiene of pregnancy and the conduct of normal labor are emphasized.

12 hours.

Second and Third Terms.—Recitations in sections dealing with the pathology of obstetrics are held by Drs. McCandlish, Conkey and Driscoll. This course is in the nature of a conference and discussion is encouraged.

21 hours.

Manikin practice is given to sections of the class. There is individual work by the students upon the phantoms under the close supervision and criticism of the instructors, Drs. McCandlish and Snyder.

o hours.

Third Term.—Professor Williamson gives a series of illustrated lectures on the pathology and complications of pregnancy. 11 hours.

Second and Third Terms—Ward Section Work.—The sections are divided into groups of eight or ten and they spend ten sessions of two hours each in the wards of Bellevue Hospital under the direction of Professor Williamson and the instructors. The sections are opened each day by the demonstration of whatever operative material there is at hand. It is then continued by bedside instruction in the management of the pregnant and parturient woman and the care of the newborn child.

20 hours.

Laboratory instruction is given in the Departments of Anatomy and Pathology upon the histology of the vulva, uterus, ligaments, Fallopian tubes, and ovaries in the pregnant and non-pregnant conditions and upon the histology and pathology of the decidua, chorion, placenta and umbilical cord. Material is demonstrated from cases of puerperal

infections and toxemias of pregnancy.

FOURTH YEAR—First and Second Terms—Practical Instruction.—Students attend cases in labor at the Berwind Maternity Clinic and make the requisite post-partum visits. Sections of five students each reside in the clinic building during a period of two weeks. Each student attends from twelve to twenty cases and when possible follows his case from the prenatal visits to the tenth day of the puerperium. The student is instructed particularly in the prenatal care. The follow-up clinic at this hospital carries the mother through a period of six weeks and the child for a period of one year. The student does his work under the control of the staff of instructors. Conferences are held in the Clinic and free discussion of the cases under treatment is encouraged.

Approximately 98 hours.

Third Term.—An elective course in advanced obstetrics is given under the direction of Professor Williamson. The student spends two weeks at Bellevue Hospital and two weeks at the Berwind Maternity Clinic and the periods are eight hours a day at the former institution

and twelve hours a day at the latter. In order that a certain number of operative cases may be seen, the time is divided through the month into day and night services. While on the Berwind Clinic service a student may elect to serve full time rather than a twelve hour day. Operative procedures are observed and the student takes part in the prenatal examination and general ward administration.

#### GYNECOLOGY

Instruction in Gynecology is given during the third and fourth years by (1) Section teaching in the Out Patient Department, (2) Didactic lectures, (3) General operative clinics, (4) Section work in operative clinics, (5) Ward demonstrations and conferences, (6) Laboratory courses, and (7) Full time elective courses.

I. Small sections of three or four students are drilled by the instructors in methods of examination and treatment of ambulatory cases in the Cornell Clinic during the third year. In connection with the Out Patient teaching, instruction is given in gynecological cystoscopy, the technic of endoscopy, cystoscopy, catheterization of the ureters and testing of kidney efficiency as applied to gynecological cases.

2. Professor Ward gives during the second term of the third year a course of didactic lectures and demonstrations on the fundamentals of gynecology.

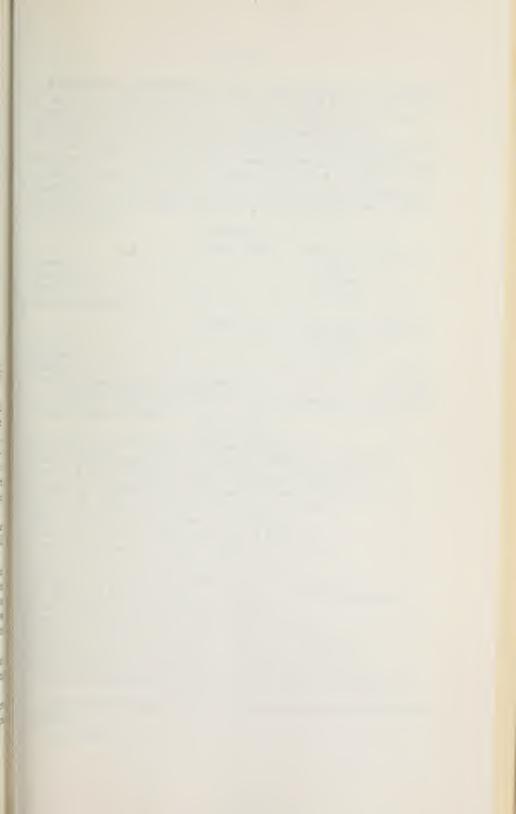
3. A general operative clinic by Professors Ward and Farrar is held at the Woman's Hospital for the fourth year students throughout the first and second terms. Charts, blackboard drawings, clay modeling, etc., are employed before the operation is begun, to teach the principles of operative gynecology. A stereomotograph is used during the operation to throw lantern slides upon the screen to show the operative steps and to refresh the student's memory of the anatomy of the region.

4. Small sections permit students at the operation to examine the patient under anæsthesia and thus enable them to study the detail of the operation, to write up reports, and to check up the diagnosis.

5. Ward demonstrations and conferences are held by the head of the department during the first and second terms of the fourth year at the Woman's Hospital. The students are brought into contact with the patients they have seen at operation and are thus enabled to follow the post-operative course of each case. They take histories of patients awaiting operation and make pelvic examination under guidance.

Methods of diagnosis are demonstrated and the appropriate treatment is outlined. Non-operative treatments are demonstrated during these conferences.

6. A course in pathological gynecology is given by the Department of Pathology during the third year. Specimens from the museum and microscopical sections of diseased tissues are demonstrated.





Lectures on gynecological pathology and laboratory demonstrations of secretions, discharges and specimens obtained from patients who come under operation are given to sections of the fourth year class by

Dr. Stöhr as a part of the course at the Woman's Hospital.

7. An elective course is given at the Woman's Hospital during the third term of the fourth year. The course provides for four students, working under supervision as clinical clerks and assistants in the hospital from 9 A.M. to 5 P.M. daily for one month. It includes operating room work, the study of special research problems and preparation of a thesis.

	SUMMARY		
	Obstetrics	Third Year	Fourth Year
Lectures		23 hours	
Recitations		33 hours	
Sections		30 hours	
Practical Obstetrics			98 hours*
	GYNECOLOGY	Third Year	Fourth Year
Lectures		10 hours	
Sections		10 hours	
Clinics			Elective
Ward Demonstrations and Con	nferences		102 hours
Text-books.—Obstetrics, W	Villiams, DeLee; Gy	necology, C.	Jeff Miller,
Kelly, Crossen, Graves.		327	•

# **PEDIATRICS**

OSCAR M. SCHLOSS, M.D., Professor of Pediatrics.

Louis C. Schroeder, M.D., Assistant Professor of Pediatrics.

LYNNE A. HOAG, M.D., Assistant Professor of Pediatrics.

Samuel Z. Levine, M.D., Assistant Professor of Pediatrics.

ARTHUR F. ANDERSON, M.D., Associate in Pediatrics.

MAY G. WILSON, M.D., Associate in Pediatrics.

PHILIP M. STIMSON, M.D., Associate in Pediatrics.

LUDWIG SCHOENTHAL, M.D., Associate in Pediatrics.

JESSE F. SAMMIS, M.D., Instructor in Pediatrics.

THOMAS E. WALDIE, M.D., Instructor in Pediatrics.

M. BERNARD BRAHDY, M.D., Instructor in Clinical Pediatrics.

CARL H. SMITH, M.D., Instructor in Pediatrics.

ROBERT O. DuBois, M.D., Assistant in Pediatrics.

MARJORIE A. WHEATLEY, M.D., Assistant in Pediatrics.

KATHERINE WOODWARD, M.D., Assistant in Pediatrics.

ELEANOR MARPLES, A.B., Research Assistant in Pediatrics.

THOMAS H. McEachern, M.D., Research Assistant in Pediatrics.

The aim of this department is to teach the fundamental principles of Pediatrics.

<sup>\*</sup> Approximately.

The student is given opportunity to become familiar with the diseases peculiar to infants and children, and receives special instruction in infant feeding and hygiene, and the therapeutics of children's diseases.

THIRD YEAR.—There is a clinical lecture once a week during the second and third terms. This comprises a systematic consideration of the subject of Pediatrics, supplemented by the demonstration of illustrative cases. The students are assigned in sections for recitations.

Sections of students are assigned to the wards for instruction in physical examination, diagnosis and treatment of sick infants and

children.

A course of instruction in contagious diseases is given at the Willard Parker Hospital. The students have opportunity to become familiar with the diagnosis, care and treatment of such diseases.

FOURTH YEAR.—The work during the fourth year is entirely clinical. The major part of the instruction is in the Out Patient Department of the New York Nursery and Child's Hospital but, in addition, the students attend ward rounds and have an opportunity to study hospital cases. During the latter part of the year there is an elective course limited to a small number of students.

#### **SUMMARY**

	Third Year	Fourth Year
Clinics	31 hours	
Recitations	21 hours	
Sections	40 hours	
Clinical Clerkships		48 hours
Elective		

Text-books.—Holt and Howland, Diseases of Infancy and Childhood; Griffiths, Diseases of Children; Porter and Carter, Management of the Sick Infant.

Collateral Reading.—Still, Common Disorders and Diseases of Child-

bood; Hess, Principles and Practice of Infant Feeding.

#### **PSYCHIATRY**

WILLIAM L. RUSSELL, M.D., Professor of Psychiatry.
MORTIMER W. RAYNOR, M.D., Professor of Clinical Psychiatry.
ISAAC J. FURMAN, M.D., Professor of Clinical Psychiatry.
GEORGE W. HENRY, M.D., Assistant Professor of Psychiatry.
JOSEPH P. EIDSON, M.D., Assistant Professor of Clinical Psychiatry.
GEORGE S. AMSDEN, M.D., Lecturer on Psychiatry.
MICHAEL J. LONERGAN, M.D., Instructor in Psychiatry.
CHARLES G. McGAFFIN, M.D., Instructor in Psychiatry.
GEORGE S. STEVENSON, M.D., Instructor in Psychiatry.

Instruction in psychiatry is given in the second, third, and fourth years. In the second year, second term, ten lectures in medical psy-

chology and elementary psychopathology serve as an introductory course to the study of clinical psychiatry. In the third year, first term, eleven lectures are given covering more advanced psychopathology; also etiology, symptomatology, and methods of examination. During the second term of the third year, ten lectures and ten one-hour clinical demonstrations are given with special reference to the psychiatric problems that are more frequently met with in general medical practice, including psychoneuroses, psychopathic states, habit disorders, and mental deficiency in adults and children. During the third term, eleven lectures are given on the etiology, symptoms, treatment, and on the social and medico-legal aspects of the psychoses. Supplementing these lectures are eleven two-hour clinical demonstrations in the wards of the Manhattan State Hospital. The lectures and clinical instruction of the course are directed especially to the relations of psychiatry to general medical study and practice.

In the fourth year, elective courses are given to selected groups of students. An opportunity is given for the personal examination and study of cases presenting psychiatric problems in the out-patient clinics, in the wards of the general hospital, and in the psychiatric

hospital at Ward's Island.

SUMMARY
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T. D.1.1 1D.1 .1.1			Fourth Year
Lectures on Psychology and Psychopathology	10 hours		
Lectures on Psychopathology, Etiology and			
Symptomatology		12 hours	
Lectures on Clinical Psychiatry		21 hours	
Clinical Demonstration		32 hours	
Advanced Psychiatry			Elective

# SPECIAL DEPARTMENTS OF MEDICINE AND SURGERY

## NEUROLOGY

CHARLES L. DANA, M.D., Professor of Clinical Medicine, Department of Neurology.

FOSTER KENNEDY, M.D., Professor of Clinical Medicine, Department

of Neurology.

THOMAS K. DAVIS, M.D., Associate in Clinical Medicine, Department of Neurology.

WALTER M. KRAUS, M.D., Associate in Clinical Medicine, Depart-

ment of Neurology.

GEORGE H. HYSLOP, M.D., Instructor in Clinical Medicine, Department of Neurology.

Lewis D. Stevenson, M.D., Instructor in Clinical Medicine, Department of Neurology.

S. Bernard Wortis, M.D., Instructor in Clinical Medicine, Department of Neurology.

Instruction in Neurology begins in the second semester of the third year with weekly clinical lectures and conferences. During this period optional instruction is also given to small groups in the college clinic under the direction of the Chief of Clinic. In the fourth year, the students are given clinical instruction in sections in the neurological wards of Bellevue Hospital until the 1st of April. In the last two months of the fourth year optional courses in neurology are given.

#### SUMMARY

	Third Year	Fourth Year
Lectures and Clinics	21 hours	
Sections		36 hours

Text-books.—Dana, Diseases of the Nervous System; Cecil, Text-book of Medicine.

Collateral Reading.—Works on nervous diseases by Sachs, Starr, Church and Peterson, Jelliffe and White, Oppenheim, Bing, and Stewart.

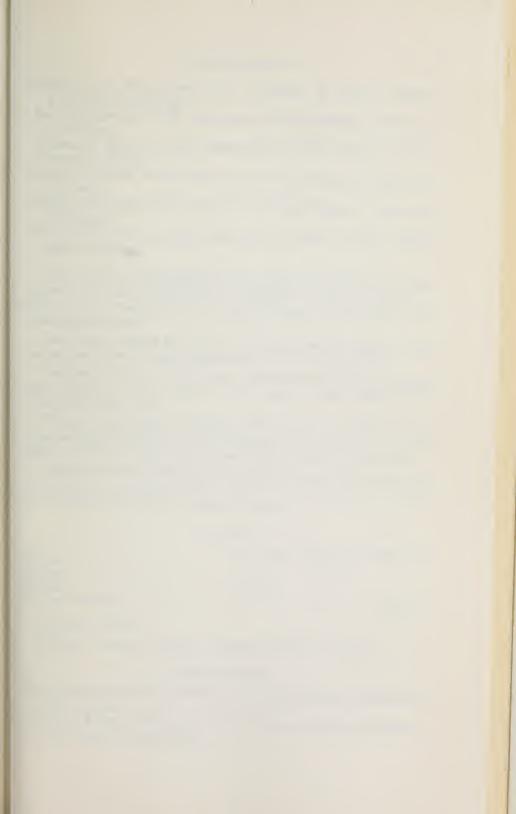
#### UROLOGY

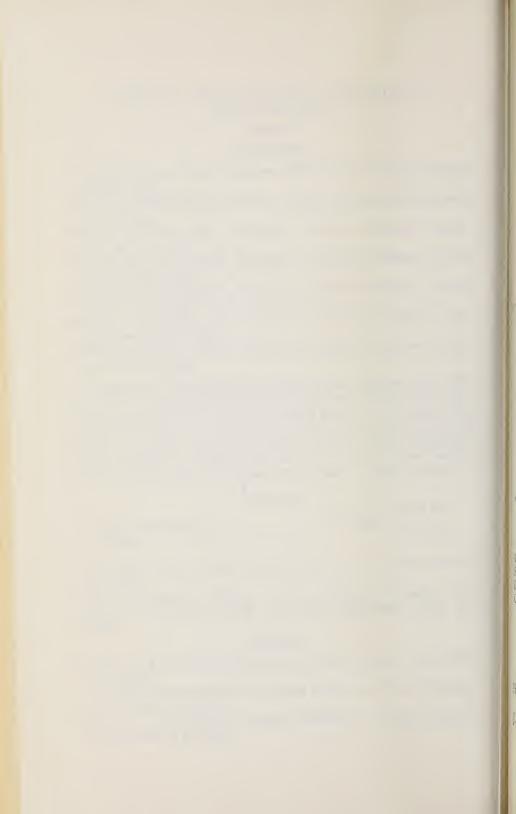
EDWARD L. KEYES, M.D., Professor of Clinical Surgery, Department of Urology.

A. RAYMOND STEVENS, M.D., Associate Professor of Clinical Surgery,

Department of Urology.

Howard S. Jeck, M.D., Assistant Professor of Clinical Surgery, Department of Urology.





Benjamin S. Barringer, M.D., Instructor in Clinical Surgery, Department of Urology.

LISLE B. KINGERY, M.D., Instructor in Clinical Surgery, Department

of Urology.

THOMAS J. KIRWIN, M.D., Instructor in Clinical Surgery, Department of Urology.

ROBERT F. ZEISS, M.D., Instructor in Clinical Surgery, Department

of Urology.

MIGUEL ALVAREZ, M.D., Instructor in Clinical Surgery, Department of Urology.

WILLIAM R. DELZELL, M.D., Instructor in Clinical Surgery, Department of Urology.

The courses in this department are required of students during the second and third years. They are designed to give instruction in diagnosis and treatment of the surgical diseases of the urinary and male genital organs.

LECTURES.—Second year. A course of eleven lectures is given to the second-year class during the third term of the college session.

Section Teaching.—Second year. The second-year class is divided into sections of small size for instruction in the College Clinic during the third term.

CLINIC.—Third year. A two-hour clinic is given in Bellevue Hospital during the second term by Professor Keyes. At this clinic typical cases are demonstrated and discussed by the students themselves.

HOSPITAL WORK.—Students who elect the course in the fourth year are assigned to clerkships in the urological wards of Bellevue Hospital or to the Cornell Clinic for advanced study.

#### SUMMARY

	Second Year	Third Year	Fourth Year
Clinics			
Sections			
Lectures	11 hours		
Clinical Clerkships			Elective

Text-book.—Keyes.

Collateral Reading.—Cabot, Thompson-Walker, Young.

#### DERMATOLOGY

Hans J. Schwartz, M.D., Professor of Clinical Medicine, Department of Dermatology.

J. Frank Fraser, M.D., Assistant Professor of Clinical Medicine, Department of Dermatology. RAY H. RULISON, M.D., Associate in Clinical Medicine, Department of Dermatology.

Andrew J. Gilmour, M.D., Instructor in Clinical Medicine, Department of Dermatology.

ARTHUR F. KRAETZER, M.D., Instructor in Clinical Medicine, Department of Dermatology.

JOHN H. HARRIS, M.D., Instructor in Clinical Medicine, Department of Dermatology.

HENRY D. NILES, M.D., Instructor in Clinical Medicine, Department of Dermatology.

Instruction in Dermatology and Syphilology is given by Professor Schwartz and his assistants. No teaching is didactic; the cutaneous diseases are demonstrated on the living subject. Abundance of material for such instruction is obtainable, and the student can thoroughly familiarize himself with the more common as well as with the rarer diseases of the skin by actual personal touch and observation. Attention is paid particularly to the diagnosis and the etiology of skin diseases, but their therapeutics also receive due consideration. Instruction is also given in the intravenous and other forms of treatment by arsphenamine and neoarsphenamine.

#### SUMMARY

	Second Year	Third Year	Fourth Year
Sections	10 hours	10 hours	Elective
Clinic	11 hours	22 hours	Elective

Text-books.—Ormsby, Diseases of the Skin; Stokes, Modern Clinical Syphilology.

#### LARYNGOLOGY AND RHINOLOGY

ARTHUR PALMER, M.D., Acting Head and Assistant Professor of Clinical Surgery, Department of Laryngology and Rhinology.

THOMAS A. MULCAHY, M.D., Instructor in Clinical Surgery, Department of Laryngology and Rhinology.

SAMUEL F. KELLEY, M.D., Instructor in Clinical Surgery, Department of Laryngology and Rhinology.

J. Dashiell Whitham, M.D., Instructor in Clinical Surgery, Department of Laryngology and Rhinology.

James O. MacDonald, M.D., Assistant in Clinical Surgery, Department of Laryngology and Rhinology.

During the second year, the department instructs each student in the ordinary methods of examination of the nose and throat. The anatomy is reviewed and exercises in instrumentation are given.

During the third year, the head of the department gives instruction by clinical exercises and by didactic lectures. In this work, he is assisted by other members of the staff. Each student has practical experience in the examination of patients in the clinic. The lectures given to the entire class are illustrated by models and by stereopticon projectives and by the presentation of cases.

Instruction is also given in the more recent measures employed in

endoscopy and rhinoplasty.

#### SUMMARY

	Second Year	Third Year	Fourth Year
Lectures		12 hours	
Sections	10 hours	20 hours	Elective
Clinic			Elective

Text-book.—Turner, Nose, Throat and Ear.

Collateral Reading.—St. Clair Thomson, Diseases of the Nose and Throat; Wright and Smith, Diseases of the Nose and Throat.

# **OPHTHALMOLOGY**

Bernard Samuels, M.D., Professor of Clinical Surgery, Department of Ophthalmology.

MILTON L. BERLINER, M.D., Instructor in Clinical Surgery, Department of Ophthalmology.

ALGERNON B. REESE, M.D., Instructor in Clinical Surgery, Department of Ophthalmology.

TRUMAN L. Boyes, M.D., Instructor in Clinical Surgery, Department of Ophthalmology.

Instruction is given in ophthalmoscopy in the second, third and

fourth years.

SECOND YEAR.—Third Term. The class is divided into small groups for instruction in the use of the ophthalmoscope and in the diagnosis of external diseases of the eye. During this same period the entire class is instructed, in the laboratory, in the microscopy of the eye by Professor Samuels. In addition to normal histology, such important diseases as uveitis, glaucoma, intra-ocular tumors, tuberculosis, injuries and sympathetic ophthalmia are covered.

THIRD YEAR.—Clinical lectures are held one hour each week throughout the first term. Ample material is obtainable from the College Clinic and from the New York Eye and Ear Infirmary.

FOURTH YEAR.—Bedside instruction in diseases of the fundi is given to small groups one hour each week during the entire year, at the New York Hospital. In the third term students may take ophthalmoscopy as an elective course. An opportunity is afforded to attend clinics and to witness operations on the living at the New York Eye and Ear Infirmary.

#### SUMMARY

	Second Year	Third Year	Fourth Year
Sections			

Text-book.—Fuchs.

Collateral Reading.—De Schweinitz, May.

# OTOLOGY

GERVAIS W. McAuliffe, M.D., Acting Head and Assistant Professor of Clinical Surgery, Department of Otology.

EMMETT C. FITCH, M.D., Instructor in Clinical Surgery, Department of Otology.

JACOB APPLEBAUM, M.D., Instructor in Clinical Surgery, Department of Otology.

THOMAS J. GARRICK, M.D., Instructor in Clinical Surgery, Department of Otology.

For clinical instruction in Qtology the third-year class is divided into sections. Each student receives practical instruction in the College Dispensary from Professor McAuliffe and his assistants in the examination of patients, the use of the otoscope, and the various methods of testing the hearing. The student is permitted to examine patients and, after a probationary period, to prescribe for them and thus gradually assume the duties of a clinical assistant. The students also have an opportunity of witnessing the more important operations in aural surgery, including intracranial complications, at the New York Eye and Ear Infirmary.

### SUMMARY

	Third	l Year
Lectures	10	hours
Sections	5	hours

Text-book.—McAuliffe, Essentials of Otology.

Collateral Reading.—Politzer, Diseases of the Ear; Whiting, The Modern Mastoid Operation; Keeler, Modern Otology.

# ORTHOPEDIC SURGERY

CHARLTON WALLACE, M.D., Professor of Clinical Surgery, Department of Orthopedic Surgery.

ARTHUR H. CILLEY, M.D., Assistant Professor of Clinical Surgery, Department of Orthopedic Surgery.

IRVIN BALENZWEIG, M.D., Instructor in Clinical Surgery, Department of Orthopedic Surgery.

Kristian G. Hansson, M.D., Instructor in Clinical Surgery, Department of Orthopedic Surgery.

JOHN S. WARE, M.D., Instructor in Clinical Surgery, Department of Orthopedic Surgery.

CHARLES L. PLUNKETT, M.D., Instructor in Clinical Surgery, Depart-

ment of Orthopedic Surgery.

Instruction in this department is carried on in the third and fourth years.

I. In the first term of the third year:

(a) Didactic and clinical lectures are given one hour a week to the entire class in the college lecture room. Professors Wallace and Cilley.

(b) The students work in sections in the College Clinic for ten hours

in the examination and treatment of patients. Professor Cilley.

II. In the fourth year:

(a) Each section of the class receives bedside instruction in congenital and acquired deformities in the wards of the Hospital for the Ruptured and Crippled, one morning each week for four weeks. The same section has one afternoon each week, from 3 to 5, in the Out-Patient Department at the Hospital for Ruptured and Crippled.

(b) One morning a week for four weeks each section receives instruction in physiotherapy in reference to the treatment of industrial

surgical conditions at the Hospital for Ruptured and Crippled.

(c) Students are taught methods of examination and are required to examine the patient, giving a concise résumé of the history, diagnosis and treatment to be employed in each case. Informal recitations and discussions are held for one hour following the case work.

#### SUMMARY

	Third Year	Fourth Year
Lectures	. 12 hours	
Sections	. 10 hours	
Ward Work		36 hours
T . 7 7 WILL 10 20		7.

Text-book.—Whitman and Soutter's Operative Orthopedics.

# RADIOLOGY

HARRY M. IMBODEN, M.D., Professor of Radiology. John R. Carty, M.D., Associate Professor of Radiology. IRVING SCHWARTZ, M.D., Instructor in Radiology. E. Forrest Merrill, M.D., Instructor in Radiology. Cornelius V. Kilbane, M.D., Instructor in Radiology. Stephen White, M.D., Instructor in Radiology.

This course is planned to give an introduction to the fundamentals of Radiology, beginning with some consideration of the principles of physics involved and then passing to the interpretation of findings on fluoroscopic screen and films. The instructors demonstrate to sections

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of the second-year class the appearance of normal structures, and to sections of the third-year class the typical pathologic conditions. In addition, instruction is given in the hospitals on the cases which the students see as clinical clerks.

Attention is also given to the subject of radiotherapy.

#### **SUMMARY**

	Second Year	Third Year	Fourth Year
Lectures			
Sections	10 hours	10 hours	

# MEDICAL JURISPRUDENCE

Отто H. Schultze, M.D., Professor of Medical Jurisprudence.

An elective course of lectures to the fourth-year class from the standpoint of the medico-legal autopsy, with demonstration of material, is given by Professor Schultze. This course covers autopsy technique in medico-legal cases, the autopsy protocol, and laboratory methods for establishing the proof of the cause of death in cases of accident, suicide, and homicide; also, the forensic aspect of the subject in cases

of indemnity, liability and criminal prosecution.

The clinical aspects of the subject are covered in the regular course of study by several departments and by special lectures. The responsibilities of the physician towards the insane and their relatives and the general public, and the medico-legal aspects of mental deficiency are discussed by the Professor of Psychiatry. The Professor of Obstetrics takes up the moral and legal side of rape, feigned and unconscious pregnancy, what constitutes a "live birth," feigned or unconscious delivery, injury to the fœtus during precipitate labor, post-mortem delivery and the diagnosis of recent delivery. The medico-legal aspects of toxicology are fully covered during the course in Pharmacology.

#### HISTORY OF MEDICINE

G. CANBY ROBINSON, M.D., Professor of Medicine.

An elective course is offered consisting of a series of lectures on the history of medicine which may be attended by students of all classes. The purpose of this course is to present each year a period in the development of knowledge pertaining to medicine and to attempt to link the progress of medicine with other historical events. It is planned to have the course extend over four years and to take up a different phase of medical history each year, so that the various important epochs may be eventually considered. For students especially interested in the history of medicine, further opportunities may be offered through seminars and informal discussions. Special lecturers on historical subjects are presented when opportunities are found. The lectures are given one hour a week during the first trimester.

## MILITARY SCIENCE AND TACTICS

THOMAS G. TOUSEY, M.D., Major, M.C., U. S. Army, Professor of Military Science and Tactics.

The course in Military Science and Tactics provides an opportunity for those students who desire to broaden their training to include a knowledge of military medicine and surgery and preventive medicine. The course is divided into a basic and an advanced course. The basic course is given during the first and second college years and includes subcourses in military policy, organization and tactics, organization and functions of the Medical Department of the Army, first aid, hygiene, and the sanitation of camps. All students are required to take the first year basic course but thereafter the course is elective.

The advanced course is given during the third and fourth college years. Students electing to take the advanced course sign a contract with the Federal Government that they will complete the course and are paid, while taking the course, at the rate of about \$9.00 per month during the college session and 70 cents per day during the six weeks Summer Training Camp which all advanced course students are required to attend. The advanced course includes the following subjects: the spread and control of communicable diseases, water purification, waste disposal, war medicine, war surgery, chemical warfare, aviation medicine, hospitals, hospitalization, duties of Reserve Officers, and mobilization duties.

Upon receiving the degree of doctor of medicine, those students who have successfully completed the advanced course in Military Science and Tactics are offered commissions as First Lieutenants in the Medical Section, Officers' Reserve Corps of the Army of the United States. Members of the second-year advanced course are eligible to apply for interneship in United States Army General Hospitals.

# FOURTH YEAR ELECTIVES

# APRIL 4 TO MAY 28, 1932

Students are to register their courses at the Secretary's office on or before March 1st.

Note.—In addition to the courses listed, students will often be able to arrange individual work on application to the heads of Departments.

#### ANATOMY

- I. General Histology. Dr. Nonidez. 2 months. Mondays, Wednesdays, Fridays, 9–12. 3–6 students.
- II. Experimental Biology. Drs. Nonidez, Armstrong and Schwind. 2 months. Full time desirable. Applicants should have special interest in the reactions of living tissues. The work consists in co-operating in research. 1-2 students.
- III. Anatomy of the Infant. Dr. Stockard. 2 months. Mondays, Wednesdays, Fridays, 2-5 P.M. 1-4 students.
- IV. Experimental Embryology. Dr. Stockard. 2 months. Tuesdays, 2-3 P.M. Not less than 6 students.
- V. Regional Anatomy. Dr. Morrill. 1 month, April or May. The instructor selects, after personal interview, 6–10 students per month. Minimum of 3 half-days per week.
- VI. Applied Anatomy. Dr. Sneed. 1 month, April. Tuesdays and Thursdays, 3-5 P.M.

#### BACTERIOLOGY

- I. Clinical Course in Human Hypersensitiveness.
  Asthma, hay fever, urticaria, angio-neurotic edema, food and drug idiosyncrasies. New York Hospital. Tuesday and Thursday at 5 P.M. 8 students. 1 month. Dr. Cooke.
  - (1) Technique of the cutaneous test. (2) Interpretation of the local reaction. (3) History taking in atopic cases. (4) Diagnosis and Treatment.

## CLINICAL PATHOLOGY

I. Students will select a problem in which they are interested or one will be assigned. Dr. Thro. 1 or 2 months. Hours elective between 9 A.M. and 5 P.M. daily, except Saturdays, by special arrangement. 1–5 students.

## DERMATOLOGY

I. Clinical Dermatology and Salvarsan Administration. Drs. Schwartz, Fraser and staff. 1 month periods. Daily, 1:30-4 P.M. and Tuesdays and Fridays 5-7 P.M. 6 students.

## GYNECOLOGY

I. Clinical Gynecology. Dr. Ward. Woman's Hospital. I month periods. Daily, as scheduled below. Work conducted in Wards, Operating Room, Laboratory and O. P. D. Preparation of a thesis or special research problem. 4 selected students.

		A.	First Two V	Neeks	3
M	onday.				
	9-12.	Operative Clinic.		2-4.	Operative Clinic.
	12- 1.				Pathological Lab.
T	uesday.				· ·
		Pathological Lab.		2-5.	Operative Clinic.
	11-12:2	o. Cystos. Clinic.		_	-
W	ednesda	y.			
	9-10.	O. P. D.		2-4.	O. P. D.
	10-11.	Follow-up.		4-5.	Pathological Lab.
	11- 1.	Study.			
	nursday.				
	9-11.	Pathological Lab.		2-4.	Operative Clinic.
		o. Cystos. Clinic.			Pathological Lab.
	ŭ	· ·		5	Conference, Surgical Staff.
Fr	iday.				
		Operative Clinic.		2-5.	Operative Clinic.
		Conference.			•
	12- 1.	Study.			
	turday.	·			
	9-11.	O. P. D.		2-3.	O. P. D.
	11- 1.	Study.		Ŭ	
		В.	SECOND Two	WEEF	S
M	onday.				
	9-1.	Wards.		2-4.	Operative Clinic.
				4-5.	Pathological Lab.
Tu	iesday.				· ·
		Wards.		2-5.	Operative Clinic.
W	ednesda	y.		•	•
		Wards.		2-4.	O. P. D.
					Pathological Lab.
Th	ursday.			. ,	5
		Wards.		2-4.	Operative Clinic.
				4-5.	Pathological Lab.
				5	Conference, Surgical Staff.
E.	:				, ,

Friday.

9-10. Wards.

11- 1. Study.

Saturday.

9–1. Wards. 2–3. O. P. D.

II. Clinical Gynecology. Dr. McGrath. Cornell Clinic. I month periods. Daily, I-4 P.M. 3 students.

2-5. Operative Clinic.

## LARYNGOLOGY

- I. Clinical Clerkship in Laryngology and Rhinology. Dr. Palmer. Course includes operative work, comprising ordinary operations performed on the nose and throat as well as the modern procedures employed in endoscopy and rhinoplasty. I month periods. All day. I selected student.
- II. Clinical Courses in Laryngology and Rhinology. Dr. Palmer and staff.

  1 month periods. Daily, 2-4 P.M. Cornell Clinic.

## **MEDICINE**

I. Clinical Clerks. Drs. Conner, Foster and Stillman. New York Hospital.

I month periods. Daily, all day. 5 students.

II. Physical Diagnosis of Diseases of the Chest. Dr. Martin. Bellevue Hospital. April or May. Tuesday and Friday, 2-4 P.M. Students are expected to spend at least two mornings per week preparing cases. Open to fourth-year students and graduates. 5 students.

III. Advanced Course in Metabolism Methods. Drs. DuBois, Richardson, Loebel and Shorr. Bellevue Hospital. The hours and work in this course will be arranged, if possible, according to the free time of the students. Instruction will be given in the technique of basal metabolism determinations by various methods including some work with the respiration calorimeter. Students will be instructed in the planning of diets and the methods of conducting metabolism experiments. Each student is expected to take part in some original investigation. I or 2 months. Daily, one-half day. 4 students.

IV. Fluoroscopy of the Gastro-Intestinal Tract. Drs. Holland and Hauser. New York Hospital. I month periods. Tuesday and Friday, 4-6 P.M. 6 students.

V. Clinical Electrocardiography. Dr. Pardee. New York Hospital. 1 month periods. Monday and Friday, 3-5 P.M. 4 students.

VI. Clinical Electrocardiography. Dr. Master. Cornell Clinic. I month periods. Monday, Wednesday and Friday, 12-I P.M. 6 students.

VII. Diagnosis and Treatment of Heart Failure. Dr. Eggleston. Bellevue Hospital. I month periods. Monday and Wednesday, 2-5 P.M. 6 students. Students are expected to devote some additional time to the preparation of cases and the study of literature.

VIII. Physical Diagnosis of the Chest. Dr. Holt. New York Hospital. 1 month periods. Monday and Wednesday, 2-4 P.M. 6 students.

IX. Clinical Course in Asthma and Hay Fever. Dr. Baldwin. At the Cornell Clinic. Tuesdays, 1:30-4 P.M. 3 students. I month periods.

X. Tuberculosis and Other Diseases of the Lungs. Dr. Bray. This course is given at the Ray Brook Sanitarium. Quarters for the students are provided in the Sanitarium but the students must pay their railroad expenses. I month periods. 6 students.

XI. Course in Gastro-Enterology. Dr. Weintraub and Associates. Cornell Clinic. Course to include the general examination of patient, fluoroscopic and proctoscopic examinations, diagnosis and treatment.

I month periods. Daily, 9:30 A.M.-12 M. 4 students. (See also Psychiatry IV.)

## MEDICAL JURISPRUDENCE

I. Course of lectures on medico-legal relations of practice and forensic medicine. Dr. Schultze. April and May. Mondays and Wednesdays, 4-5 P.M. Number of students not limited.

## **NEUROLOGY**

# Courses in Neurology and Neuro-Anatomy One-month periods

I. Neurology. Clinics at Cornell Dispensary Monday, Tuesday, Thursday, 1-3 P.M.

II. Neurology. Bellevue Hospital. Dr. Kennedy and Assistants. Wednesday and Saturday, 10:30 A.M.—12 M. Work in the wards and in the neurological laboratory under the supervision of the visiting staff.

III. Neurological Clinic. Neurological Institute. Dr. Davis. One day, 2–5 p.m.
Students who desire additional Neurology may arrange for it by consulting Dr. Kennedy.

Students may take such of these courses as they choose, except that it is imperative that they take at least the afternoon course at the Cornell Clinic.

IV. Neuro-Anatomy and Neuro-Pathology. Dr. Stevenson. See Pathology IV.

V. Experimental Neurology. Laboratory Experimental Neurology. Bellevue Hospital. Dr. Wortis. Daily, 9 a.m. to 1 p.m. Animal experimentation, including Neurophysiology, Neuropharmacology, and Neurosurgical problems.

## **OBSTETRICS**

I. Clinical Clerkship in Obstetrics. Dr. Williamson. Berwind Maternity Clinic and Bellevue Hospital. 1 month periods. Full time or 7 A.M. to 7 P.M. 15 students.

## OPHTHALMOLOGY

- I. Clinical Clerks. Dr. Samuels. New York Eye and Ear Infirmary, New York Hospital and Cornell Clinic. 1 month periods. All day. 2 students.
- II. Ophthalmoscopy and Refraction. Dr. Reese. Cornell Clinic. I month periods. Wednesdays and Fridays, 2-4 P.M. 6 students.
- III. Ophthalmoscopy and Refraction. Dr. Berliner. N. Y. Eye and Ear Infirmary. I month periods. Mondays and Fridays, 2-4 P.M.
- IV. Ophthalmoscopy. Dr. Boyes. N. Y. Eye and Ear Infirmary. Mondays and Fridays, 2-4 P.M. 10 students.
- V. Ophthalmoscopy and Refraction. Dr. Berliner. Cornell Clinic. Tuesdays and Thursdays, 1-4 P.M. 6 students.

#### OTOLOGY

I. Otology. Dr. McAuliffe. Cornell Clinic. 1 month periods. Daily, 2-4 P.M. A clerkship, entirely clinical. 3 students.

## **ORTHOPEDICS**

I. The Orthopedic Department of the Hospital for Ruptured and Crippled. Mondays, Wednesdays, Fridays and Saturdays, 9–10:30 A.M. Dr. Balenzweig. 10–12 students.

## **PATHOLOGY**

- Tumor Diagnosis. Dr. Ewing and staff. Memorial Hospital. 2 months. 5 days, 1-5 P.M. daily, except Saturdays. 5 students.
- II. Pathological Thesis. Dr. Ewing. 2 months. Daily, 9 A.M.-5 P.M., Saturdays until 12 M. only. 5 students.
- III. Gynecological Pathology. Dr. L'Esperance. 1 month. Monday, Wednesday, Friday, 3-5 P.M.
- IV. Neuropathology. Dr. Stevenson. 1 month, May only. Monday, Tuesday and Friday, 9 A.M.-12 M. 6 students.

## PEDIATRICS

- I. Clinical Pediatrics. Drs. Schloss, Schroeder, Hoag and Sammis. New York Nursery and Child's Hospital. Daily, 9 A.M.-5 P.M. I month periods. Limited to 3 or 4 students.
- II. Clinical Pediatrics. Dr. Stimson. Cornell Clinic. Mondays, 1:30-4; Wednesdays and Fridays, 9:30-12. Malnutrition in older children. Unusual conditions for diagnosis

# PUBLIC HEALTH AND PREVENTIVE MEDICINE

and treatment.

I. Laboratory Methods and Procedures. Drs. Torrey and Kahn. Loomis Laboratory. Daily until 12 M., 2 months. I student.

### PHARMACOLOGY

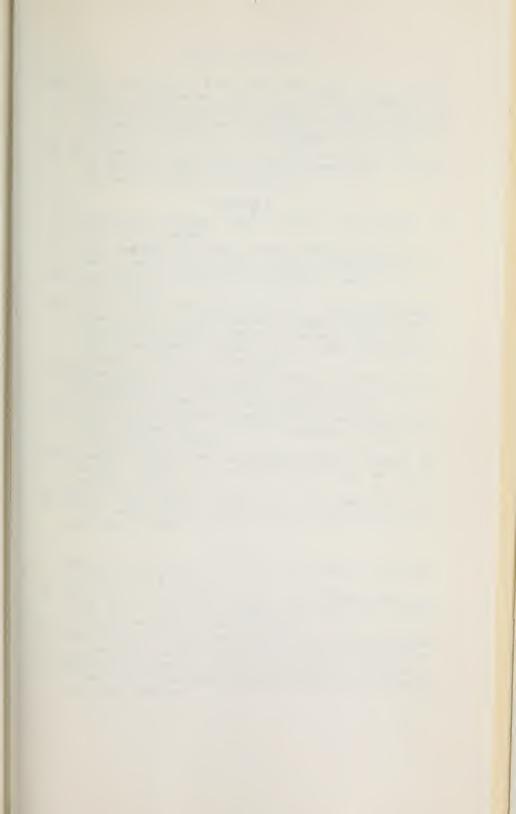
- I. Pharmacology of Cardiac Drugs. Drs. Hatcher and Gold. 2-week periods. Monday, Wednesday, Friday, 2-5 p.m. 4-12 students. Laboratory work with conferences. The course is intended to aid the student in the therapeutic use of various drugs in this group.
- II. Pharmacologic Research. Dr. Gold. Arrangements will be made for individuals or groups to participate in original investigations with a view to learning the methods of pharmacologic research.

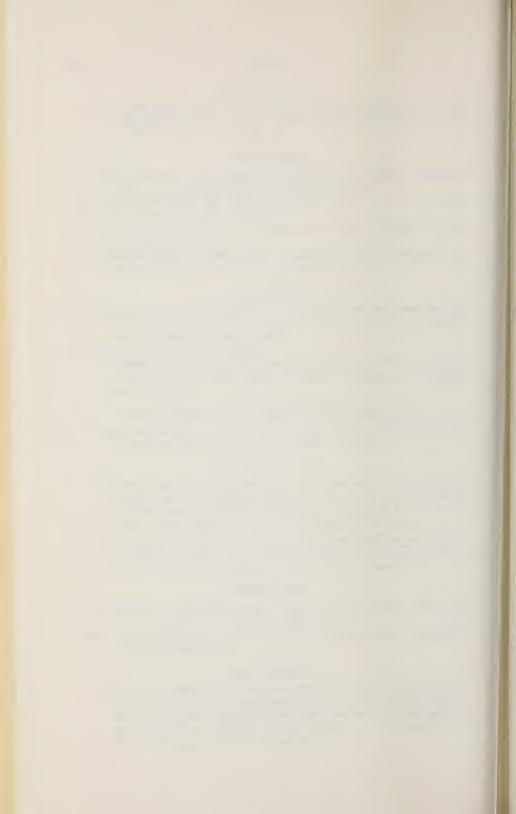
#### PHYSIOLOGY

- I. Calorimeter Investigation. Drs. Lusk and Chambers. April only. 4 weeks. 9 A.M. to 1 P.M. daily. 2 students.
- Electrocardiography. Dr. Edwards. 4 weeks. Hours elective and subject to special arrangement.

#### **PSYCHIATRY**

I. Clinical Psychiatry. Dr. Eidson and associates. Cornell Clinic. Course to include instruction in psycho-neurotic conditions, mild psychoses, and other types of psychiatric problems met with in office and outpatient practice. I month periods. Monday and Thursday, 9-II A.M. Wednesday, 2-5 P.M. 4 students.





III. Clinical Psychiatry. Dr. Furman, Manhattan State Hospital, Ward's Island. Instruction and practice in examination, diagnosis, and treatment of major psychotic conditions, with special reference to problems met in general medical practice. I month periods. Monday, Wednesday and Friday, 9 A.M.—12 M. Not less than 4 students.

IV. In co-operation with the Department of Medicine students registered for Medicine X, Gastro-Enterology, receive instruction in associated

psychiatric conditions by Dr. Stevenson.

## **SURGERY**

I. Clinical Clerks. Dr. Dudley. Bellevue Hospital. 1 month periods. All day. 4 selected students.

II. Surgical Pathology. Dr. Symmers. Bellevue Hospital. Laboratory and wards. I month, May only. Daily, full time. 6 students.

III. Clinical Clerks. Dr. Hitzrot. New York Hospital. 1 month periods. All day. 2 students.

IV. Dispensary Course. New York Hospital. Drs. Weeden, Cornell, Wade, Duley and Jensen. Clinical course in fractures of upper extremity, minor surgery, "accident" surgery, varicosities and care and treatment of post-operative wounds. 4 weeks. Tuesday, Thursday and Saturday, 10 A.M. to 1 P.M. 8 students.

V. Surgical Diseases in Children. Surgical Clerkships in Wards, Clinic and Admitting Room of St. Mary's Hospital. Dr. Farr. Daily, 9 A.M.-4 P.M.;

Saturdays till 12 M. only. One month periods. 4 students.

VI. Surgical Diagnosis and Minor Surgery. Dr. Patterson. Cornell Clinic.
Daily except Saturday, 1:30-4 P.M. and Tuesday and Friday, 5-7 P.M.
1 month periods. 3 students.

VII. Radiological Diagnosis in Gastroenterology. Bellevue Hospital. Dr. Buckstein. Monday, Wednesday and Friday, 1-2:30 P.M. I month

periods. 5 students.

XI. Minor Surgery. Bellevue Hospital, Out Patient Department. Dr. Dudley and Assistants. Monday, Wednesday and Friday, 9-10:30 A.M. I month periods. 10 students.

#### **UROLOGY**

I. Minor Urology. Drs. Jeck and Delzell. Cornell Clinic. 1 month periods. Daily, 1-4 P.M. 8 students.

II. Major Urology. Drs. Stevens and Jeck. Bellevue Hospital, Ward K4, 8:30 A.M.-5 P.M., daily. Diagnosis and treatment of surgical urological conditions. 1 month. 6 students.

III. Minor Urology and Elementary Cystoscopy. Drs. Jeck and Delzell. Cornell Clinic. 2 months, April and May. Daily, 2-4 P.M. 4 students.

IV. Diagnosis and Treatment of Neoplasms of the Urinary and Male Genital Tracts. Dr. Barringer. Memorial Hospital. Subject to special arrangement with instructor.

# SCHEDULE OF COURSES

## FIRST YEAR—SESSION OF 1931-1932—FIRST TERM SEPTEMBER 29 TO DECEMBER 19

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday						
9												
10		ANATOMY										
11												
12	12											
I		Biochemistry		Biochemistry	Biochemistry							
2	Histology	Anatomy	Histology	Biochemistry								
3					Histology							
4		Military Science L.	Medical History† L.									

†Elective.

## FIRST YEAR—SESSION OF 1931-1932—SECOND TERM JANUARY 4 TO MARCH 12

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday		
9				Biochemistry	Biochemistry  Anatomy  Histology			
10		Histology		Anatomy				
11								
I 2								
I		Biochemistry						
2	Anatomy		Anatomy		Anatomy			
3				Biochemistry				
4		Biochemistry	Military Science					

# FIRST YEAR—SESSION OF 1931-1932—THIRD TERM

MARCH 14 TO MAY 28

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9					Biochemistry	
11	Biochemistry	Physiology Bioche	Biochemistry	Physiology	Physiology	- Physiology
I 2						
I						
2	Neuro-Anat.	Physiology	Neuro-Anat.	Physiology	Neuro-Anat.	
3	iveuro-Anat.	Military Science	TVCUIO-IIIIat.		14curo-zinaci	

Abbreviations—L., lectures; Lab., laboratory; Rec., recitations; Sec., section (the class being assigned to two or more divisions for certain exercises); B. H., Bellevue Hospital (Second Division); B. H. 4, Bellevue Hospital (Fourth Division); B. M. C., Berwind Maternity Clinic; C., Cornell Clinic; Man. Mat., Manhattan Maternity Hospital; Mem. II., Memorial Hospital; N. C., New York Nursery and Child's Hospital; N. Y., New York Hospital (O.P.D., Bellevue Hospital); W. Paient Department; R. & C., Hospital for the Ruptured and Crippled; St. L., St. Luke's Hospital; St. M., St. Mary's Hospital; W. I., Ward's Island, Manhattan State Hospital; Wom. Hosp., Woman's Hospital; W. P., Willard Parker Hospital.

# SECOND YEAR—SESSION OF 1931-1932—FIRST TERM

SEPTEMBER 29 TO DECEMBER 19

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9		Physiology**		Physiology** L.		Surgery Clinic,
10		* Pathology	Physiology**	Pathological	Physiology**	В. Н.
11	Thy siciosy	Pathology	Anat	Anatomy	Anat	
12				Surgery Rec.		
1		Military Science**				
2	Physiology †	Surgery L.	Physiology †	Pathology Lab.	Physiology †	
3	Medicine Clinic,	Physical Diagnosis	Medicine Clinic, B. H. (Pathological Physiology)	uato.	Medicine L. (Path. Physiol.)	
4	N. Y. §	L. and Demonstr.	Medical History †			

<sup>\*</sup> Last three weeks only. † Elective.

§ First six weeks only.

# SECOND YEAR—SESSION OF 1931-1932—SECOND TERM

JANUARY 4 TO MARCH 12

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday				
9	Medicine Rec.	Sections (See Schedule I)			Pathology	Sections (See Schedule I)				
10		(See Schedule 1)	Laboratory	(See Schedule I)	Laboratory	(See Schedule 1)				
11	Pathology Laboratory		Pathological Anatomy		Psychiatry L.					
12			Anatomy							
1		Military Science †								
2		Bacteriology Laboratory								
3	Sections A vening days Sections I	22. Inter-								
4	uary 4. Entire clas	ss reports Monday,	January 4 at 2 P.M	d.						

† Elective. For abbreviations see page 94.

<sup>\*\*</sup> First nine weeks only.

# SECOND YEAR—SESSION OF 1931-1932—THIRD TERM

MARCH 14 TO MAY 28

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
9	Pharmacology	Surgery	Pathology	Pharmacology	Surgery Clinic, B. H.	Pathology Laboratory	
11	Laboratory	Clinic, St. L.	Laboratory	Laboratory	Pathology Laboratory	Laboratory	
12		Medicine Rec.				Pathological Anatomy	
1	Medicine Clinic, B. H.		Military† Science	Urology L.	Dermatology Clinic		
2		Bacteriolo		. 14-18 and Mch. 14-18 and Apr. 2			
3	Sec	-iviay 2/					
4		Ophthalmology Clinic					

# THIRD YEAR—SESSION OF 1931-1932—FIRST TERM SEPTEMBER 29 TO DECEMBER 19

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9	Pathology Laboratory	Public Health	Medicine L.			Public Health Lab.
10	Laboratory	Lab.	Lab. Medicine Rec.		Laboratory	Lab.
11	Medical Clinic, C.	Obstetrics Rec.				
12						
I						
2	Public Health Field	Ophthalmology Clinic	Military † Science	Orthopedic Surgery	Pharmacology	
3	Excursion	Pharmacology L.	Surgery Rec.	Pharmacology	Dermatology Clinic	
4		Obstetrics L.	Medical History		Psychiatry Clinic	

<sup>†</sup> Elective. ‡ No Bacteriology on Tuesdays.

<sup>†</sup> Elective. For abbreviations see page 94.

## THIRD YEAR—SESSION OF 1931-1932—SECOND TERM

JANUARY 4 TO MARCH 12

	Monday	Tues	day	Wednesday	Thursday	Friday	Saturday
9	Surgery L.	Surgery Sections		Medicine L.	Pediatrics	Public Health L.	Urology Clinic,
10	Pediatric Rec.	* St. L.	Patho- logical Anat-	Medicine Rec.		Gynecology L.	B. H.
11	Operative	Surgery Sections		Public Health L.	Psychiatry Clinic	Operative	Psychiatry L.
12	Surgery	Mem. H.		Military † Science	Surgery Rec.	Surgery	Surgery Rec.
I							
2			-	SECTIONS			
3				(See Schedule III)			
4	Radiology L.	Obste Re		Dermatology Clinic	Otology L. or Clinic	Neurology Clinic	

<sup>\*</sup>Sections A to E take Surgery the first half term, Pathological Anatomy the second.
Sections F to J take Surgery the second half term, Pathological Anatomy the first. Sections change 9 A.M.,
February 8, 1932.
† Elective.

## THIRD YEAR—SESSION OF 1931-1932—THIRD TERM

March 14 to May 28

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9	Surgery L.	Psychiatry	Public Health L.	Pediatrics Clinic, N. C.	Surgery Clinic, N. Y.	Military † Science
10	Pediatrics Rec.	Clinic, W. I.	Medicine Rec.	Clinic, N. C.	Clinic, N. 1.	Public Health L.
11	Surgery Rec.		Medicine Clinic, C.	Surgery Rec.	Obstetrics L.	Psychiatry L.
12	Surgery L.				Therapeutics	
I						
2			SECTIONS	3		
3						
4	Roentgenology L.	Obstetrics Rec.		Laryngology L.	Neurology L.	

<sup>†</sup>Elective. For abbreviations see page 94.

## FOURTH YEAR—SESSION OF 1931-1932

SEPTEMBER 29 TO MARCH 28

	Med	licine	Sur	gery	Neurology B. H. M. F.	Pediatrics N. C.	Orthopedics R. & C.M.— M. F.	Obstetrics B. M. C.	Elective †
	N. Y.	в. н.	N. Y.	в. н.	2-5 P.M. Wed. 9-12 M.	Tu. Th. S. 9 A.M I P.M.	9 A.M12 M. Wed. 2-5 P.M.	Gynecology Wom. Hosp.	Tu. Th. S. 2-5 P.M.
September 29 to October 24	A	D	F	С	E	E	E		E*
October 26 to November 21.	В	E	D	A	F	F	F	(See next page for assignments)	F*
November 23 to December 19.	С	F	E	В	D	D	D		D*
January 4 to January 30	D	A	С	F	В	В	В	(See next	В
February 1 to February 27	E	В	A	D	С	С	С		С
February 29 to March 26	F	С	В	E	A	A	A		A
March 28 to April 2		Examinations in all subjects.							

<sup>\*</sup>A course of Lectures on Medical History, to students of all four classes, is offered by Professor G. Canby Robinson, Wednesdays, 4 to 5 P.M., September 30 to December 2.
†Students desiring electives will first consult the head of department and then register at the Secretary's office four weeks in advance for elective work on Tuesday, Thursday and Saturday P.M.

## FOURTH YEAR—SESSION OF 1931-1932

APRIL 4 TO MAY 28

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday				
Hour	Monday	luesday	Wednesday	Inursday	Friday	Saturday				
9										
10		ELECTIVES  Students will register their courses at the College office								
11	Stud									
12		One-mon	on or befor th courses r		eks only.					
I			hey change							
3	(No course can be dropped without written permission from heads of all departments concerned, and from the Dean.)									
4	Students will take work in Pathological Anatomy (Autopsies) as posted on Bulletin Board.									
5										

For abbreviations see page 94.





# FOURTH YEAR SECTIONS IN GYNECOLOGY AND OBSTETRICS Session of 1931-1932

	Obstetrics Section, B. M. C. full time*	Gynecology Section, Wom. Hosp.§ 9 A.M5 P.M.
September 27 to October 10	B <sub>2</sub>	В1
October 11 to October 24	B <sub>1</sub>	В2
October 25 to November 7	C <sub>2</sub>	C <sub>1</sub>
November 8 to November 21	C <sub>1</sub>	C <sub>2</sub>
November 22 to December 5	A <sub>2</sub>	A <sub>1</sub>
December 6 to December 19	Aı	A <sub>2</sub>
December 20 to January 2		
January 3 to January 16	E <sub>1</sub>	E <sub>2</sub>
January 17 to January 30	E <sub>2</sub>	E <sub>1</sub>
January 31 to February 13	F <sub>1</sub>	F <sub>2</sub>
February 14 to February 27	F <sub>2</sub>	F <sub>1</sub>
February 28 to March 12	D <sub>1</sub>	D <sub>2</sub>
March 13 to March 26	$D_2$	D <sub>1</sub>

<sup>\*</sup> Students report at 9 A.M. on the first day of each assignment. Begins Sunday. § Begins Monday. For abbreviations see page 94.

# SECTION CLASSES

DETAIL SCHEDULE of Second and Third Years SESSION OF 1931-1932

NOTE.—Section periods in each instance include both dates. Sections are designated by letters; a figure following indicates a half section.

## SECTION SCHEDULE I

## SECOND YEAR-SECOND TERM-JANUARY 4 TO MARCH 12

Hospital Sections	Jan. 5-21	Jan. 23-Feb. 6	Feb. 9-25	Feb. 27-Mar. 12
Surgery, 9–10.30 A.M. Tues. and Sat., B. H.; Thur., St. M.	A B Cı	C <sub>2</sub> D E	F G H <sub>I</sub>	H <sub>2</sub> I J
Medicine, 9–11 A.M. Tues., Thur. and Sat., B. H.	C <sub>2</sub> D E	F G Hı	H <sub>2</sub> I J	A B C <sub>1</sub>
Medicine, 9–11 a.m. Tues., Thur. and Sat., N. Y.	F G H <sub>1</sub>	H <sub>2</sub> I J	A B Cı	C₂ D E
Medicine, 9-11 A.M. Tues., Thur. and Sat., B. H. IV	H <sub>2</sub> I J	A B Cı	C <sub>2</sub> D E	F G Hı

The numerals 1 or 2 after a section letter indicate the 1st or 2d half section.

# SECTION SCHEDULE II

# SECOND YEAR—THIRD TERM—MARCH 14 TO MAY 28

Cornell Clinic Sections		Monday Tuesday 2-4 P.M.		Wednesday 2-4 P.M.	Thursday 2-4 P.M.	Friday 2-4 P.M.
Daniel	March 21-April 22	F	G	Н	I	J
Dermatology	April 25-May 27	A	В	С	D	E
Laryngology	March 21-April 22	J	F	G	Н	I
	April 25-May 27	Е	A	В	С	D
I I alama	March 21-April 22	I	J	F	G	Н
Urology	April 25-May 27	D	Е	A	В	С
O-habal-sala-ss	March 21-April 22		HI		J F	G
Ophthalmology	April 25-May 27		C D		E A	В
Radiology	March 21-April 22		GH, F§	ΙJ		
	April 25-May 27		A§, B C	DE		

<sup>§</sup> One section comes Tues. 5-6 P.M.

SECTION SCHEDULE III
THIRD YEAR—SECOND AND THIRD TERMS—JANUARY 4 TO MAY 28

	Term II, Jan. 4-Mar. 12				Те	Term III, Mar. 14-May 28				
	Mon.	Tues.	Wed.	Thur.	Fri.	Mon.	Tues.	Wed.	Thur.	Fri.
Medicine, C., 2-4 P.M.	A	В	С	D	Е	F	G	Н	I	Ј
Dermatology, C., 2-3 P.M.	В	С	D	Е	A	G	Н	I	J	F
Laryngology, C., 3-4 p.m.	В	С	D	Е	A	G	Н	I	J	F
Pediatrics, N. C., 1.30-3.30 P.M.	С	D	Е	A	В	Н	I	J	F	G
Obstetrics, (Manikin Sec.) 3-4 P.M.	D		A		C G	I E		F		H B
Gynecology, C., 2-4 P.M.*	E <sub>1</sub> E <sub>2</sub>	A <sub>1</sub> A <sub>2</sub>	B <sub>1</sub> B <sub>2</sub>	C <sub>1</sub> C <sub>2</sub>	$D_1$ $D_2$	J <sub>1</sub> J <sub>2</sub>	F <sub>1</sub> F <sub>2</sub>	G <sub>1</sub> G <sub>2</sub>	H <sub>1</sub> H <sub>2</sub>	I <sub>1</sub> I <sub>2</sub>
Orthopedics, C., 2-4 P.M.*	E <sub>2</sub> E <sub>1</sub>	A <sub>2</sub> A <sub>1</sub>	B <sub>2</sub> B <sub>1</sub>	C <sub>2</sub> C <sub>1</sub>	$D_2$ $D_1$	J <sub>2</sub> J <sub>1</sub>	F <sub>2</sub> F <sub>1</sub>	G <sub>2</sub> G <sub>1</sub>	H <sub>2</sub> H <sub>1</sub>	I <sub>2</sub> I <sub>1</sub>
Otology, C., 2-3 P.M. (5 times only, beginning Jan. 25 and April 4)	D	E	A	В	С	I	J	F	G	Н
Obstetrics, B. H., (or Man. Mat.) 2-4 P.M.	G H		I J		F	B C		D E		A
Pediatrics, W. P., 1.45-3.45 P.M.‡		G I		F H J			B		A D E	
Radiology, 1.30–2.30 p.m.	I J F1		F <sub>2</sub> G H			D E A <sub>1</sub>		A <sub>2</sub> B C		

<sup>\*</sup>Each half section takes 5 weeks only—Sections change at 9 a.m., February 8 and April 18. ‡ First exercise at the College, thereafter at W. P. Hospital. See bulletin board for department schedule. For abbreviations see page 94.

# COURSES FOR GRADUATES AND SPECIAL STUDENTS

Special courses are offered in several of the departments to graduates in medicine, teachers, advanced students and research workers in the medical sciences. For the benefit of such applicants these courses have been compiled, and are listed below under the several departments by which they are offered.

The courses offered with the exceptions indicated are minor courses continuing six to eight weeks. Several departments are equipped to offer co-ordinated work extending over longer periods. Such courses can be arranged for the student by consultation with the head of the

department.

In general it is recommended that students applying for admission to graduate courses so far as possible arrange to take consecutive work for a period of at least one College session. Such courses will be under the immediate supervision of an instructor from the department in which the greater portion of the student's work is performed.

The faculty reserve the right to limit the number of applicants received

and to alter or withdraw courses at any time without notice.

## **ADMISSION**

Graduates in Medicine, Arts or Science, from approved colleges, who desire to pursue courses not leading to a degree are admitted to registration as graduate students after approval by the head of the department. Such courses do not count in any way as a part of the four years' course required of candidates for the degree of Doctor of Medicine. All students or other workers pursuing courses indicated below are required first to register at the office of the Secretary.

### **FEES**

Graduate students are admitted to any of the courses of instruction offered on the payment of a registration fee of ten dollars, an administration fee of five dollars and the tuition fee assigned to the course. Those who have been previously registered as students in the Cornell University Medical College are not required to pay the registration fee.

In the courses outlined below, those marked with an \* may be begun at any time during the session.

#### ANATOMY

1. Embryology.

Terms I and II. September to March. Fee \$50. Details on page 52.





2.\* Histological Technic.

Laboratory at least three hours daily and conferences with instructors. Fee \$30.

3 and 4. General Histology, Microscopical Anatomy.

Terms I and II. September to March. Details on page 52. Fee \$50.

5.\* Dissection.

See Courses I-V, page 53. Fee \$30 per term (ten weeks); or for the entire dissection, \$50.

6. Neuro-Anatomy.

Term III. March to May. Details on page 53. Fee \$30.

7.\* Anatomical Research.

Subject to special arrangement with head of department.

## BACTERIOLOGY

1. Applied Immunology.

Drs. Coca and Cooke. Clinical work at the New York Hospital with the collaboration of the Department of Medicine. Laboratory Course at the New York Hospital the entire month of June, five mornings and four afternoons a week. Fee \$205.

The laboratory course includes the demonstration of the principal phenomena of anaphylaxis in the guinea pig and the rabbit, with a discussion of the relation of anaphylaxis to human hypersensitiveness; the methods of preparing and standardizing the fluid extracts and solutions used in the diagnosis and treatment of asthma and hay fever and the methods of collecting and preserving pollens that are the excitants of seasonal hay fever and asthma.

Any of the clinical applications of immunological principles (such as blood matching, the Schick and Dick tests, the forensic identification of human blood) will be demonstrated on request. Graduate students have access to

the laboratory at any time during the day.

The clinical course consists of demonstrations in the Dispensary of the New York Hospital, at the asthma and hay fever clinic, four afternoons weekly. Each individual has ample opportunity to become thoroughly acquainted with the methods of diagnosis and treatment of these and allied conditions.

Applications for this course should be made before May 1.

#### CHEMISTRY

1.\* Physical Chemistry as applied to Medicine.

Eleven weeks, two lectures, one laboratory period. Fee \$25.

2.\* Physiological Chemistry.

Two terms, of ten and eleven weeks each. Two lectures and two laboratory periods each week. Fee \$25 per term.

3.\* Chemical Pathology.

A practical course in methods of blood analysis. Two three hour periods a week for one month. Fee \$25.

4.\* Research Work in Physiological Chemistry, Chemical Pathology, or Toxicology.

Hours and fee to be arranged with each student.

Note.—Courses in this department are subject to special arrangement with head of department. Special students in this department must present satisfactory evidence of preliminary training in inorganic chemistry with laboratory work as outlined on page 41.

## CLINICAL PATHOLOGY

I. Laboratory Diagnosis.

Elementary and advanced instruction is offered in all the tests commonly performed in a clinical laboratory. Hours and fee are to be arranged with Dr. Thro.

## DERMATOLOGY

1.\* Clinical Dermatology.

Ambulatory cases. Thrice weekly for four weeks. 2-3 P.M. Fee \$50.

2.\* Histopathology of the Skin and Its Diseases.

Twice weekly for six weeks. Class of two to five students. Fee \$100.

## LARYNGOLOGY AND RHINOLOGY

1.\* Clinical Laryngology.

Dr. Palmer and staff. Course of fifteen lessons on diagnosis and therapeutics, including operative procedures and clinics on tonsillectomy and bronchoscopy at option of student. 2 to 4 P.M., November 30 to December 18, or June 13 to 31. Six students. Fee \$25.

## MEDICINE

I. Applied Immunology. (See Bacteriology.)

2. Advanced Course in Metabolism Methods. (See page 90.)

#### **NEUROLOGY**

1. Neuro-anatomy and Neuro-pathology.

See Departments of Anatomy and Pathology. The student must present satisfactory evidence of an adequate knowledge of general histology. Fee \$25 in each department.

3.\* Clinical Neurology.

Includes study of ambulatory and ward cases, with medical and electrical therapeutics. Two hours daily for two months. Should be preceded by Course I or its equivalent. Fee \$50.

4.\* Psycho-therapeutics.

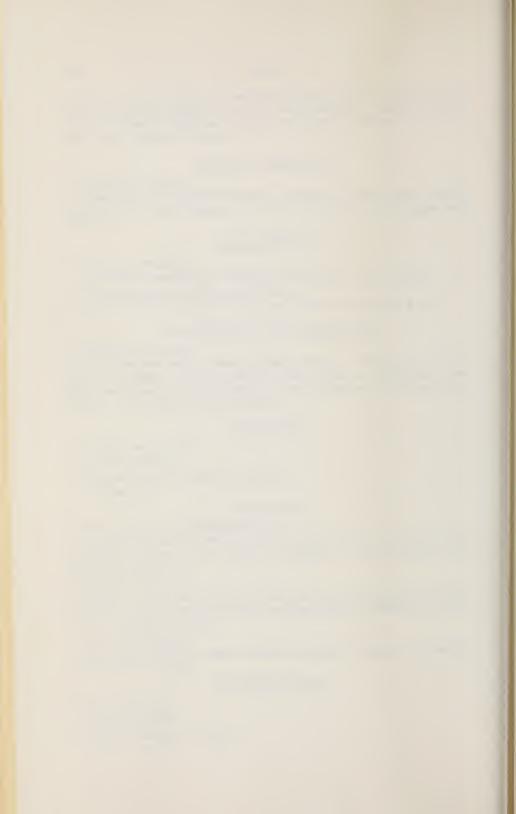
Twice weekly for eight weeks. Should be preceded or taken in conjunction with Course 3. Fee \$25.

## **OPHTHALMOLOGY**

1.\* Ophthalmoscopy.
20 hours. Fee \$25.

2.\* External Diseases of the Eye. 20 hours. Fee \$25.





3.\* Diseases of the Eye Muscles.

15 hours. Fee \$20.

- 4.\* Refraction and Retinoscopy. 20 hours. Fee \$25.
- 5.\* Simulation of Amblyopia and Amaurosis.

5 hours. Fee \$20.

6.\* Clinical Ophthalmology.

Daily 2-3 P.M. Fee, per month, \$25.

7.\* Ophthalmic Operation on the Cadaver.

(This course is given in co-operation with the Department of Anatomy.) 20 hours. Fee \$50.

8.\* Pathological Histology of the Eye.

(This course is given in co-operation with the Department of Pathology and must be applied for in advance.) 20 hours. Fee \$50.

9.\* Slit-lamp Microscopy. 20 hours. Fee \$50.

## **PATHOLOGY**

1.\* Gynecological Pathology.

Dr. L'Esperance. Six hours or more weekly for about one month. Class is limited to ten students. Fee \$50.

2.\* Special Courses in Tumor Diagnosis.

Courses are open to graduate students in the College Laboratory and in the Memorial Hospital at times to meet the convenience of applicants. Fee to be arranged with instructor.

3.\* Neuro-pathology.

Dr. Stevenson. Hours to be arranged. Class limited to five students. Fee \$50.

## PHARMACOLOGY

1.\* Laboratory Pharmacology.

Under supervision and including conferences with instructor. Fee \$25.

2.\* Research Work in Pharmacology.

Subject to special arrangement with head of department.

#### PHYSIOLOGY

1. Physiology.

Begins with Term III in March and continues in Term I of the following session. Details on page 56. Fee \$50.

2.\* Physiological Research.

Subject to special arrangement with head of department.

## THE GRADUATE SCHOOL

The Faculty of the Graduate School has control of graduate work in all departments of Cornell University and exclusive jurisdiction over the granting of all advanced degrees. Certain professors in the scientific departments of the Medical College in New York City offer graduate instruction as an integral part of the Graduate School of Cornell University. Properly qualified students may accordingly enter upon graduate work in New York City under the jurisdiction of professors in these departments and may become candidates for advanced degrees under the same conditions as apply to students in other divisions of the Graduate School. In all cases, such students are required to register each term at the office of the Dean of the Graduate School, Cornell University, Ithaca, N. Y., and at the office of the Director of the Medical College in New York City. A copy of the Announcement of the Graduate School, giving the rules and regulations pertaining to advanced degrees and the list of departments and subjects in which graduate instruction is offered, will be sent on application to the Dean of the Graduate School.

Graduates of the following colleges of the University, namely, the College of Arts and Sciences, the Medical College, the College of Architecture, the College of Law, the College of Engineering, and the New York State Colleges of Agriculture, Home Economics and Veterinary Medicine—or of other institutions in which the requirements for the first degree are substantially equivalent—are eligible for admission to the Graduate School. In other cases, studies pursued after graduation, and experience gained by professional work or otherwise are taken into consideration in deciding whether the candidate's preparation as a whole is such as to justify his admission to the Graduate School.

Graduate students resident in New York City and working under the direction of members of the Faculty connected with the Cornell Medical College are students in the Graduate School of Cornell University, and as candidates for an advanced degree are subject to all the regulations laid down by the Faculty of the Graduate School. The members of the Medical College who give instruction to graduate students constitute Group F of the Faculty of the Graduate School, and the Chairman of this Group, Professor C. R. Stockard, is a member of the General Committee of this Faculty. Graduate students in New York City are advised to acquaint themselves with the rules and regulations of the Graduate School as set down in the Announcement, and to correspond directly with the Office of the Dean of the Graduate School in Ithaca. Professor Stockard, as Chairman of Group F, will be willing to advise with graduate students in New

York in regard to the details of their graduate work and plans for candidacy. Copies of the Announcement and various official forms used by the Graduate School may also be obtained from the Director's office at the Medical College.

## **FEES**

A Matriculation Fee of \$10 is required of every student upon entrance into the University. It must be paid at the time of registration.

A Tuition Fee of \$75 for the academic year is to be paid by all

students registered in the Graduate School.

An Administration Fee of \$25 is to be paid by all students registered in the Graduate School.

A Graduation Fee of \$20 is required, at least ten days before the degree is to be conferred, of every candidate for an advanced degree. The Fee will be returned if the degree is not conferred.

Certain classes of students are exempt from payment of the tuition

fee. They are:

(1) Graduate students holding appointments as University Fellows or Graduate Scholars.

(2) Graduate students holding appointments as assistants and instructors and having their major studies in the college or line of work in which they are instructing, are exempt only from the payment of tuition fees in the department in which they are employed to give instruction; members of the instructing staff who take work for which they must pay tuition are required to pay in proportion to the amount of work for which they are registered.

# FACULTY OF MEDICINE AT ITHACA

LIVINGSTON FARRAND, A.M., M.D., LL.D., President.

ABRAM TUCKER KERR, B.S., M.D., Secretary of the Medical College at Ithaca, Professor of Anatomy.

SIMON HENRY GAGE, B.S., Professor of Histology and Embryology, Emeritus.

Benjamin Freeman Kingsbury, Ph.D., M.D., Professor of Histology and Embryology.

James Batchellor Sumner, A.M., Ph.D., Professor of Biochemistry.

HOWARD SCOTT LIDDELL, M.A., Ph.D., Professor of Physiology.

James Wencelas Papez, A.B., M.D., Assistant Professor of Anatomy and Neurology.

HOWARD BERNHARDT ADELMANN, A.M., Ph.D., Assistant Professor of Histology and Embryology.

JOSEPH ALMA DYE, A.B., PH.D., Assistant Professor of Physiology.

GEORGE HARRISON MAUGHAN, A.M., Ph.D., Instructor in Physiology.

Russell Milliser, A.B., Instructor in Anatomy.

DAVID BIRNEY HAND, A.B., Instructor in Biochemistry.

JOSEPH STANLEY KIRK, B.S., Instructor in Biochemistry.

O. D. Anderson, B.S., Ph.D., Instructor in Physiology.

ADRIAN F. REED, A.B., Instructor in Anatomy.

THEODORE SNOOK, B.S., Instructor in Histology and Embryology.

FRED A. METTLER, AB., Assistant in Anatomy.

STACEY F. HOWELL, A.B., M.S., Assistant in Biochemistry.

ANDREW J. RAMSAY, A.B., Assistant in Histology and Embryology.

W. HENRY WALLER, A.B., Assistant in Histology and Embryology.

RUTH McMILLAN HUNTER, A.M., Assistant in Histology and Embryology.

NORMAN S. MOORE, A.B., M.D., Demonstrator of Anatomy.

HENRY B. SUTTON, A.B., M.D., Demonstrator of Anatomy.





## INSTRUCTION AT ITHACA

## During the First Year of the Course

## CALENDAR FOR ITHACA

# FIRST TERM, 1931-1932

- Sept. 28, 29 Monday and Tuesday—Registration and assignment of New Students.
- Sept. 29, 30 Tuesday and Wednesday—Registration and assignment of Old Students.
- Oct. 1 Thursday-Instruction begins.
- Oct. 23 Friday-Last day for payment of tuition for first term.
- Nov. 25 Wednesday—Instruction ends at 6 P.M.
- Nov. 30 Monday—Instruction resumed at 8 A.M.
- Dec. 19 Saturday—Instruction ends at I P.M. (Christmas recess).
- Jan. 4 Monday—Instruction resumed at 8 A.M.
- Jan. 11 Monday-Founder's Day.
- Feb. 1 Monday-Term examinations begin.
- Feb. 10 Wednesday—Term examinations end; first term closes.
- Feb. 11 Thursday—Holiday.

## SECOND TERM

- Feb. 12 Friday—Registration of all students for the second term.
- Feb. 15 Monday—Instruction begins at 8 A.M.
- Mar. 7 Monday—Last day for payment of tuition for second term.
- Apr. 2 Saturday—Instruction ends at I P.M. (Spring recess).
- Apr. 11 Monday—Instruction resumed at 8 A.M.
- May 28 Saturday—(Holiday.) Spring and Navy Day.
- June 6 Monday—Final examinations begin.
- June 14 Tuesday-Final examinations end.
- June 20 Monday-Commencement.

## GENERAL STATEMENT

From its foundation, Cornell University has offered special courses for students preparing for the study of Medicine; first in the Natural History Course, and later also in a special two-year Medical Preparatory Course. In 1898 the Medical College was established in New York City with a four years' course. At the same time the work of the first two years was duplicated at the University in Ithaca, since many of the fundamental scientific subjects of which this part of the course mainly consists were already provided for in the long-established departments of Botany, Zoology, Comparative Anatomy, Physics, Chemistry, Physiology, Histology, Embryology, and Bacteriology. The courses in these departments were modified where necessary and additional courses were added so as to make the work at Ithaca equivalent to the first two years in New York City. In 1908, the work of the second year was discontinued at Ithaca.

IIO Cornell

OTHER COLLEGES OF THE UNIVERSITY.—Among the facilities of the University of special value to the Medical College may be mentioned the museums of Vertebrate and Invertebrate Zoology (including Entomology and Comparative Anatomy), of Agriculture, of Botany, of Geology, and of Veterinary Medicine. The University Library with its 742,723 volumes and pamphlets, and over 2,000 current periodicals and transactions, is as freely open to medical students as to other University students.

STIMSON HALL.—This is a modern and thoroughly equipped laboratory building erected for the Medical College at Ithaca in 1902. It was made possible through the generosity of the late Dean Sage of Albany and named at his desire Stimson Hall in recognition of the services rendered by Dr. Lewis A. Stimson toward the establishment of the Medical College. The building was especially designed for teaching and research in anatomy, histology, embryology, and physiology. The building is constructed of Ohio sandstone. The general form is that of an E, 157 feet long and 50 feet wide with wings 40 feet square.

In the cellar are sound-proof conditioned reflex rooms, the cold-

storage, embalming, cremating rooms and storerooms.

In the basement are the ventilating and cold-storage machinery, a large lecture room, research rooms, and an advanced laboratory for histology, besides the lower part of the large amphitheatre. Here also is located the operating room for the Department of Physiology.

On the first floor are located the coat rooms for men and women, College office, library, reading room, faculty room, histology and embryology research laboratory, general laboratory for experimental physiology, demonstration and metabolism room for physiology,

and the upper part of the large amphitheatre.

On the second floor is the Department of Histology and Embryology with a large general laboratory, research laboratory, preparation rooms, and private laboratories for the instructors. Upon this floor also is located the Department of Physiology with a large general laboratory for biochemistry, research laboratories for biochemistry, a research laboratory for experimental physiology, an incubator room, repair shop and private laboratories for the instructors.

The third floor consists of the general and special dissecting rooms for gross anatomy and neurology, study rooms, dark room, Radiology room and amphitheatre, besides rooms for the instructors.

The attic is utilized for photography, macerating skeletons, and for

storage.

The air in the building is constantly changed by forced ventilation.

The lighting is especially good in all the rooms.

In the court behind the building is a house for alcohol and inflammables and provision for experimental animals, including a small animal house. Additional animal houses and experimental laboratories are located at some distance from the medical building on the Physiology Field Station.

The VanCleef Memorial Library.—This library, endowed by Mr. Mynderse VanCleef in honor of his brother, Dr. Charles VanCleef, is located in Stimson Hall and supplements the extensive facilities of the University Library by a steadily growing collection of reference works and periodicals of importance for the work of instruction and research conducted in Stimson Hall. The library room is lighted by indirect overhead light, and the reading desks are provided with daylite lamp fixtures.

Experimental Field Station.—An important adjunct to the Department of Physiology is an Experimental Field Station which consists of nine acres situated in the open country about two miles from the Medical College. In this fenced field a barn for the accommodation of large animals such as sheep and goats, and proper houses with runs for small animals have been provided. In such a station animals under observation in feeding and nutrition experiments, for example, may be kept under ideal conditions for long periods of time. A laboratory equipped for the study of conditioned reflexes has been constructed in which it is possible, due to the quiet environment, to provide an experimental room practically sound proof. This is essential for success in the investigation of conditioned reflexes. Communication between the station and the laboratory is maintained by a motor truck belonging to the department.

The Sarah Manning Sage Research Fund.—As a recognition of the importance of the research side of university work, and as a timely and generous gift, there came in 1916 a bequest of \$50,000 by the will of Sarah Manning Sage, widow of Dean Sage, the donor of Stimson Hall. The income of this sum, or in the discretion of the University the principal also, shall be used to promote the advancement of medical science by the prosecution of research in the Cornell University Medical College at Ithaca, in connection with any and all subjects at any time embraced in the curriculum.

## PLAN OF INSTRUCTION

## ANATOMY

ABRAM T. KERR, B.S., M.D., Professor of Anatomy.

James W. Papez, A.B., M.D., Assistant Professor of Anatomy and Neurology.

RUSSELL MILLISER, A.B., Instructor. ADRIAN F. REED, A.B., Instructor. FRED A. METTLER, A.B., Assistant.

NORMAN S. MOORE, A.M., M.D., Demonstrator.

HENRY B. SUTTON, A.B., M.D., Demonstrator.

The courses in anatomy are designed to provide a comprehensive

and detailed study of the structure of the human body.

The work in gross anatomy is mostly concentrated in the first term of the first year. The laboratory is open from eight to five on week days, except Saturday. Twenty-five hours a week are allowed for the required work in the first term and four hours a week in the second term. Students who have additional hours free may devote more time to the subject.

The work consists mainly of dissection followed by recitation on the part dissected. For this work there is an ample supply of dissecting material well embalmed and kept in cold storage ready for use. Each student is required to do a clean and careful dissection of a lateral half of the body. The regional method of dissection is followed. The student is furnished a systematic laboratory outline so arranged where possible that the structures in each region can be studied together as a topographic, functional or surgical area. It is realized that no one method or point of view is sufficient or applicable to every region. The purpose throughout is to make the student find and identify every structure, to appreciate its functional significance, its relations and its peculiar characteristics, to assemble details into general concepts, to visualize and interpret every region and organ. The aim is to direct the student to work methodically, to observe carefully and to think clearly and independently. He is encouraged to make careful notes and as many drawings as time permits. Where feasible, he is taught to compare his findings on the cadaver with conditions in the living body.

An x-ray outfit in the department makes it possible in many regions to compare the x-ray picture from the cadaver with the findings in the dissection. A complete disarticulated skeleton is loaned to each student so that the bones may be available for study when encountered in course of dissection. In addition the department is well equipped with models, cross sections, and special dissections for study and demonstration. For study of the finer structure of the organs hand lenses and several binocular dissecting microscopes are provided in the labora-

tory. A student library containing atlases and some of the more important anatomical monographs is in connection with the laboratory. Besides the usual regional recitation on the dissected part, demonstration conferences are held about three times a week with the class as a whole or with smaller groups. Occasional lectures are given on matters that cannot be made clear by dissection and demonstrations.

The work in the anatomy of the nervous system and sense organs is given during the second term. It consists mainly of laboratory work with frequent conferences and recitations. A topographic study and dissection of the organ or part precedes or accompanies its microscopic study. Special attention is given to the sense organs, nerves, nuclei, reflex connections, conduction tracts and cortical areas that enter into the formation of the more important functional systems. In connection with each organ or part, its development and comparative morphology is considered. For this work an ample supply of human brains, brains of lower mammals, Weigert sections, and other preparations are available.

The department is well equipped to provide facilities for those properly qualified to undertake advanced and research work. Students with special ability or training are permitted to do more than the required work. Where time permits they are encouraged to do advanced or research work.

1. Anatomy of the Head and Neck.

First term. Credit, 4 hours, 24 actual hours a week for 6 or more weeks. Professors Kerr and Papez, instructors and assistants. Laboratory work, dissection, and conferences.

2. Anatomy of the Thoracic Walls and Viscera.

First term. Credit, I hour, 24 actual hours a week for 2 or more weeks. Professors Kerr and Papez, instructors and assistants. Laboratory work, dissection, and conferences.

3. Anatomy of the Abdominal and Pelvic Walls and Viscera.

First term. Credit, 4 hours, 24 actual hours a week for 6 or more weeks. Professors Kerr and Papez, instructors and assistants. Laboratory work, dissection, and conferences.

5. The Nervous System. Anatomy, Histology, and Systematization.

Second term. Credit, 3 hours, Assistant Professor Papez and instructors. Eight hours a week laboratory with laboratory demonstrations, conferences and recitations. Dissection of the spinal cord and brain. Microscopic structure and development of the nervous system.

6. Anatomy of the Living Body.

First term. Credit, 2 hours, 3 actual hours a week. Professor Kerr. Interpretation of dissecting room material by means of the living body, frozen sections, and special preparations. A review of the work of Courses 1, 2, and 3. 7. Anatomy of the Upper Extremity.

First term. Credit, 2 hours, 24 hours a week for 2 or more weeks. Professors Kerr and Papez, instructors and assistants. Laboratory work, dissection, and

conferences.

8. Anatomy of the Lower Extremity.

Second term. Credit, 2 hours, 4 hours a week for 16 weeks. Professors Kerr and Papez, instructors and assistants. Laboratory work, dissection, and conferences.

9. Topographical Anatomy.

First and second terms. Credit, 2 to 5 hours. Elective. Prerequisite, anatomy courses 1, 2, 3, 7, or 8. The detailed dissection and study of any region. Professor Kerr.

250. Research in Anatomy and Neurology.

First and second terms. Professors Kerr and Papez. Advanced and research work in the laboratories. Open only to those who have taken the necessary preliminary courses, and are properly qualified.

## HISTOLOGY AND EMBRYOLOGY

Benjamin F. Kingsbury, Ph.D., M.D., Professor. Howard B. Adelmann, A.M., Ph.D., Assistant Professor. Theodore Snook, B.S., Instructor. Ruth McMillan Hunter, A.M., Assistant. W. Henry Waller, A.B., Assistant. Andrew J. Ramsay, A.B., Assistant.

As indicated by the following courses, this department offers elementary and advanced instruction in the theory and use of the microscope and its accessories in histology and embryology and, also,

opportunities for research in all of these subjects.

The material equipment consists of a good supply of modern microscopes. Camera-lucidas, polariscopes, micro-spectroscopes, photomicrographic cameras, microtomes and other special apparatus such as dark-field illuminators are available in sufficient numbers to give each student opportunity for personally learning to use and apply them to any special study in which they may be needed. Two projection microscopes are available for class demonstrations and for making the drawings used in reconstruction.

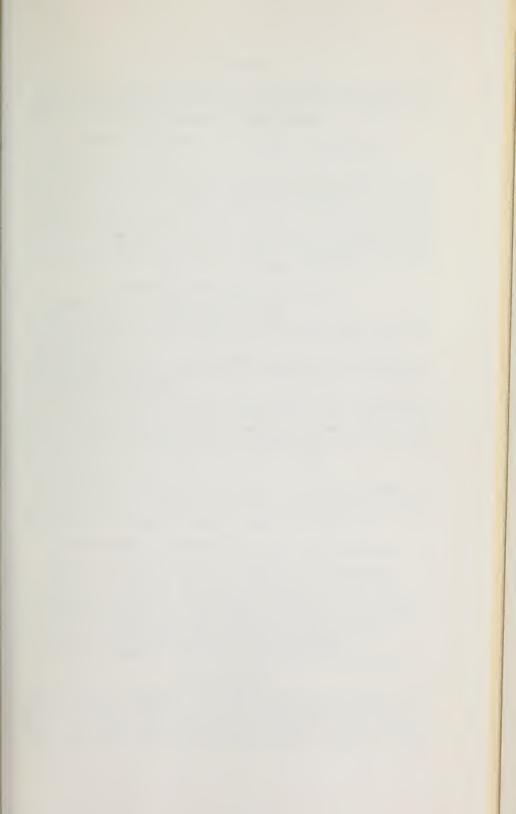
The rooms for the use of the department are on the second floor of Stimson Hall. They are well lighted. They consist of a large general laboratory, an advanced laboratory, a preparation room, department office and five private laboratories for the instructing staff, where special demonstrations of difficult subjects are given to small groups of

students.

The collection of material and microscopic series of human embryology, contributed mainly by graduates of the College, is steadily growing. Every encouragement is given for the fullest utilization of

the opportunities afforded by the department.

The work of the department consists of practical laboratory work, supplemented by lectures, conferences, and demonstrations. The work required of students of medicine is given in Course 10. For those who have already had elsewhere satisfactory work in histology, elective





work may be taken in Courses 107 and 108. Courses open to students in the College of Arts and Sciences and Veterinary Medicine are described in the announcements of these colleges.

#### COURSES REQUIRED OF STUDENTS OF MEDICINE

10. Histology.

First term. Credit, 8 hours. Professor Kingsbury, Assistant Professor Adelmann and assistants. Required of first-year students of medicine. Four laboratory periods and four lectures each week. The work includes (a) The fundamentals of human development; (b) The histology of the tissues and organs (except the nervous system); (c) The main facts of histogenesis and the development of the organs (except the nervous system). It is highly advantageous that the course be preceded by a course in embryology (see Courses of Instruction of the College of Arts and Sciences, Course 104).

#### ADVANCED AND ELECTIVE COURSES

107. Advanced Work in Histology and Embryology.

First and second terms. Professor Kingsbury and Assistant Professor Adelmann. Laboratory work, eight or more actual hours a week, with Seminary (Course 108).

This course is designed for those preparing theses for baccalaureate or advanced degrees, and for those wishing to undertake special investigations

in histology and embryology.

Course 107 is open to those who have had Course 10, or its equivalent. A good reading knowledge of French and German is indispensable for the most successful work in this course. It is suggested that those who intend to take this course confer with the head of the department as early as possible, so that the work may be planned to the best advantage.

108. Seminary.

First and second terms. One hour each week at an hour to be arranged. For the discussion of current literature and the presentation of original work by the members of the department staff and those doing advanced work in the department. It may be taken in connection with Course 107.

# DEPARTMENT OF PHYSIOLOGY AND BIOCHEMISTRY

James B. Sumner, A.M., Ph.D., Professor of Biochemistry. Howard S. Liddell, A.M., Ph.D., Professor of Physiology. Joseph A. Dye, A.B., Ph.D., Assistant Professor of Physiology. George H. Maughan, A.M., Ph.D., Instructor in Physiology. David B. Hand, A.B., Ph.D., Instructor in Biochemistry. J. Stanley Kirk, B.S., Instructor in Biochemistry. Stacey F. Howell, A.B., M.S., Instructor in Biochemistry.

#### **PHYSIOLOGY**

This subject is taught in the second term of the first year of the medical curriculum. It is the aim of the department to give the students a thorough training in the fundamentals of the Science of Physiology and an effort is made to strike the proper balance between

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the study of theoretical principles in the lecture room and the practical application of these in the laboratory.

Nine hours a week are devoted to practical exercises, special attention being given to experimental methods which are likely to be

of importance in the study of clinical medicine.

In the laboratory, from year to year, less and less time is taken up with frog physiology and more and more time devoted to a practical study of mammalian functions. This is made possible by the fact that the department now possesses six large Brodie type kymographs of recent pattern for the exclusive use of medical students.

The following courses are offered:

31. Physiology of Muscle and Nerve; Central and Automatic Nervous Systems; Special Senses.

Second term. Credit, 4 hours. Professor Liddell and assistants. Four lectures or recitations and three laboratory periods weekly for eight weeks.

34. Physiology of Digestion and Secretion; Absorption; Excretion; Heat Production and Its Regulation; and Functions of the Endocrine Glands.

Second term. Credit, 4 hours. Assistant Professor Dye, Instructor Maughan and assistant. Four lectures or recitations and three laboratory periods weekly for eight weeks, supplemented by demonstrations, conferences and written reviews. In the Laboratory, the students will gain practical experience by making animal preparations, demonstrating and studying the physiological mechanisms of the mammalian body.

308. Advanced Work and Research in Physiology.

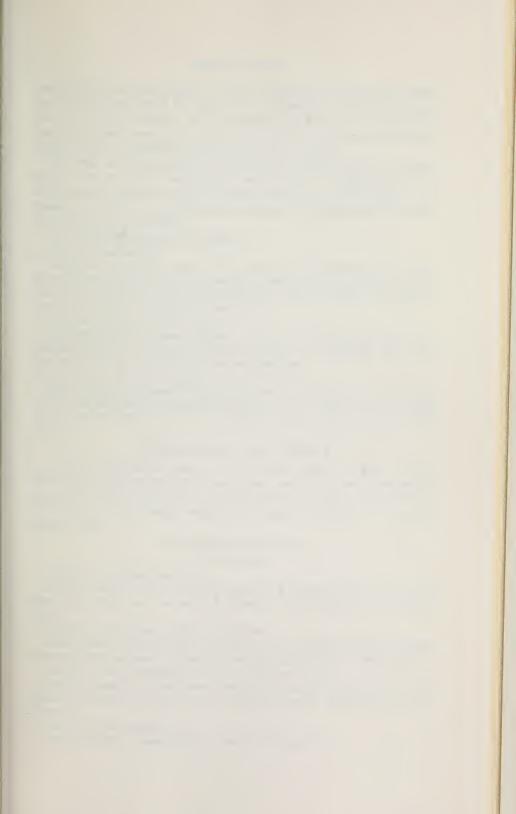
First and second terms. Credit, 2 or more hours. Assistant Professor Dye. Prerequisite or parallel, courses 31 and 34 or their equivalents. This course is designed for undergraduate students who are especially interested in physiological problems and wish to undertake special investigations in this field in preparation for further work toward advanced degrees.

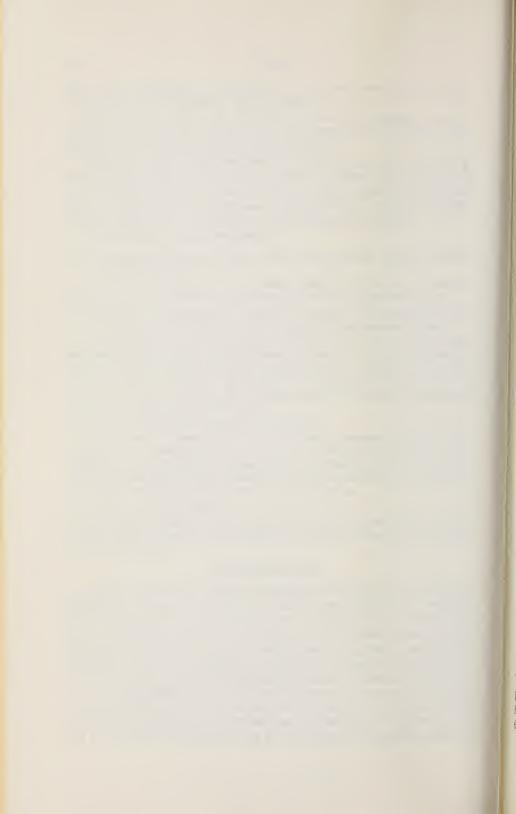
310. Seminary in Physiology.

Second term. Credit, I hour. For graduate students and others properly qualified. Hour to be arranged. Members of the staff. Reports on recent advances in physiology.

#### BIOCHEMISTRY

In this section the student is taught the chemistry of the tissues, fluids, secretions, and excretions of the human body; the compositions of food-stuffs, and the phenomena of their digestion, absorption, and assimilation; the rôle of enzymes in the animal economy; the principles of nutrition; and the leading facts of general and special metabolism. Groups of organic compounds of especial biological importance will be discussed emphasizing particularly the carbohydrates, purins, amino acids, and fats. The fundamental properties of electrolytes and colloids and the phenomena of osmosis and dialysis will be considered in lecture room and laboratory. Instruction is given in the use of analytical methods for the examination of biological products,





both normal and pathological. Those methods are principally considered which have found an application in scientific medicine, and special attention is devoted to the quantitative analysis of the gastric contents, blood, and urine. Each student completes the course by performing a metabolism experiment upon himself.

The bulk of the instruction is given in the laboratory. As occasion arises, the student's individual work there is supplemented by experimental demonstrations; while by means of lectures and recitations it is sought to co-ordinate the whole, and to expound the theoret-

ical aspects of the subject.

The following courses are offered:

15. General Biochemistry.

Second term. Credit, 9 hours. Five lectures or recitations and four three-hour laboratory periods weekly; supplemented by demonstrations, conferences and written reviews. Professor Sumner, Instructors Kirk and Howell. Required of first-year students of medicine.

17. Special Chapters in Biochemistry.

First term. Credit, I hour. Professor Sumner. One lecture weekly on some selected province of biological chemistry. Hour to be arranged. This is an elective course for advanced students or graduates.

320. Advanced and Research Work in Biochemistry.

First and second terms. Professor Sumner. The laboratory is open daily to all qualified persons for advanced instruction or the prosecution of research. Courses are arranged to suit the training and requirements of the individual student.

#### SUMMARIZED STATEMENT

In this schedule the counts or University hours are given on the following basis: One recitation or lecture weekly for one term or half year gives a credit of one; for laboratory work it requires two and one-half to three actual hours weekly for a term or half year to secure a credit of one.

# REQUIRED COURSES FIRST TERM

1. Anatomy of the Head and Neck.

Credit, 4 hours, 24 actual hours a week for 6 weeks. Professors Kerr and Papez, instructors and assistants. Laboratory work, dissection, and conferences.

2. Anatomy of the Thoracic Walls and Viscera.

Credit, I hour, 24 actual hours a week for 2 weeks. Professors Kerr and Papez, instructors and assistants. Laboratory work, dissection, and conferences.

3. Anatomy of the Abdominal and Pelvic Walls and Viscera.

Credit, 4 hours, 24 actual hours a week for 6 weeks. Professors Kerr and Papez, instructors and assistants. Laboratory work, dissection, and conferences.

6. Anatomy of the Living Body.

Credit, 2 hours, 3 actual hours a week. Professor Kerr.

7. Anatomy of the Upper Extremity.

Credit, 2 hours, 24 hours a week for 2 or more weeks. Professors Kerr, Papez and assistants.

10. Histology.

Credit, 8 hours. Professors Kingsbury, Adelmann, instructors and assistant. Four laboratory periods and four lectures each week.

#### SECOND TERM

31. Physiology of Muscle and Nerve; Central and Automatic Nervous Systems; Special Senses.

Second term. Credit, 4 hours. Professor Liddell and assistants. Four lectures or recitations and three laboratory periods, weekly for eight weeks.

34. Physiology of Digestion and Secretion; Absorption; Excretion; Heat Production and Its Regulation; Functions of the Endocrine Glands.

Second term. Credit, 4 hours. Four lectures or recitations and three laboratory periods weekly for eight weeks, supplemented by demonstrations, conferences and written reviews. In the laboratory, the students will gain practical experience by making animal preparations, demonstrating and studying the physiological mechanisms of the mammalian body. Professor Dye, Instructor Maughan and assistants.

15. General Biochemistry.

Credit, 9 hours. Five lectures or recitations and four three-hour laboratory periods weekly, supplemented by demonstrations, conferences, and written reviews. Professor Sumner and instructors.

5. The Nervous System. Anatomy, Histology, and Development.

Credit, 3 hours. Assistant Professor Papez and instructors. Eight actual hours a week. Dissection of the spinal cord and brain. Microscopic structure of the nervous system and organs of special sense.

8. Anatomy of the Lower Extremity.

Credit, 2 hours, 4 actual hours a week. Professors Kerr and Papez and assistants.

First Te	ERM		Actual
	No. of Course	University Hours	Hours Weekly
Anatomy	1, 2, 3, 7	II	24
Anatomy	6	2	3
Histology	10	8	16
-		_	_
		21	43
Second T	ERM		
Anatomy	8	2	4
Physiology	31	4 \	13
Physiology	34	4 \$	*3
Nervous System	5	3	8
Biochemistry	15	9	17
		-	-
		22	42





#### GENERAL INFORMATION

# REQUIREMENTS FOR ADMISSION

The requirements for admission are identical with those of the Medical College at New York City (see page 41).

#### RESIDENCE AND REGISTRATION

The college year is nine months long, extending from the last of September till about the middle of June, and is divided into two nearly equal terms. (For exact dates, see calendar on page 109.)

No credit is given for work done in absentia. For leave of absence during the session, application should be made to the Secretary.

At the beginning of the term students must register with the University Registrar, in Morrill Hall. After registration with the University Registrar, they must register with the Secretary of the Medical College, in Stimson Hall.

#### EXAMINATIONS AND ADVANCEMENT

Students are advanced in course from one year to the next on passing examinations on the work of that year. The work of each year is considered final of itself. There is no unnecessary repetition of subjects taught from year to year. According to the usage of the other colleges, the University student found to be markedly deficient will be dropped from the College at the end of the term. In the case of a student so dropped, an application for re-admission will not be considered

until after the expiration of one term.

Upon the completion of the year in Ithaca, a transcript of the record of each student, together with a statement that such student is recommended for admission to the second-year class, is transmitted by the Faculty at Ithaca to the Faculty of the Medical College in New York City. As a student is not advanced from one year to another in the New York division until all the work of the year is completed, a student from Ithaca cannot enter the second-year class in New York until the entire schedule of the first year has been successfully completed. For removing any conditions, examinations are held at the beginning of the fall term, both in Ithaca and in New York City. The student is at liberty to take these examinations in Ithaca or in New York City. The examination on a subject in either place is final for that year. That is, the student will not be permitted to try an examination on a subject in Ithaca, and take advantage of the later date for the examination in New York to have a second examination on the same subject in the same autumn.

#### CHARGES FOR INSTRUCTION

#### FIRST YEAR

		\$510.00

Willard Straight and Infirmary fees are paid by medical students as well as by all other students.

All tuition and other fees may be changed or increased by the Trustees to take effect at any time without previous notice.

Applications for registration in the Medical College should be made by February 1, and a deposit of \$100 is required if accepted.

An application received after February 1 may be accepted if, in the judgment of the Faculty there is adequate provision for the student's instruction.

The advance of \$100 on account of tuition which is required of each applicant on acceptance for admission is payable normally within two weeks of notification, and is not returnable.

#### RESIDENTIAL HALLS

The University has eight residential halls for men students situated on the Campus and furnishing accommodations for about 600 students. For particulars address The Manager of Residential Halls, Morrill Hall, Ithaca, N. Y. There are, also, many private boarding and rooming houses near the University Campus. In these the cost of board and furnished room, with heat and light, varies from \$10 to \$15 a week. By the formation of clubs, students are sometimes able to reduce their expenses for room and board. Cafeterias are maintained by the University in Cascadilla Hall, in Willard Straight Hall, and one by the College of Agriculture in the Home Economics Building, where meals may be obtained at reasonable prices.

Before engaging rooms, students should carefully examine sanitary conditions and should particularly insist on satisfactory and sufficient fire escapes. The University publishes and distributes a list of approved rooming houses. This list is ready for distribution August 15. New students are advised to come to Ithaca a few days in advance of the beginning of the University duties in order that they may have ample time to secure room and board before the opening of the academic year. The Freshman Advisory Committee offers its assistance to new students in the selection of rooming and boarding houses.

The residential halls for women students are Sage College, Prudence Risley Hall and Balch Hall. In these buildings, which are exclusively for women students, the total cost of board, laundry and rent of furnished rooms, with heat and light is \$560 a year. The halls are heated

by steam, and lighted by electricity. The Dean of Women has jurisdiction over all women students in the University, and women students are not permitted to board and lodge outside of the halls for women except in houses approved by the Dean, and subject to her direction. Prospective women students should write to the Dean of Women for information concerning any matters in which they may need assistance. Dormitory facilities for women are inadequate, and prospective students desiring such accommodations are urged to make early application. Inquiries in regard to board and rooms in the women's halls should be addressed to The Manager of Residential Halls, Morrill Hall, Ithaca, N. Y.

# CORNELL UNIVERSITY MEDICAL COLLEGE

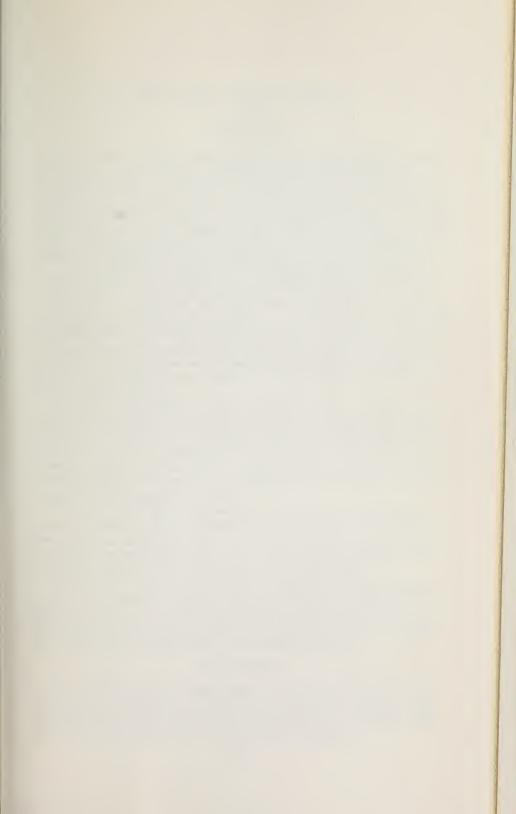
ITHACA, N. Y.

# FIRST YEAR—SESSION OF 1931-1932—FIRST TERM

	8	9	10	11	11.30	I	2	3
Mon.	Anatomy L.	Histol. L.	Histology		Anatomy			
Tues.			Anatomy		Anatomy			
Wed.	Anatomy L.	Histol. L.	Histology			Anatomy		
Thurs.		Anatomy			Anatomy			
Fri.	Anatomy L.	Histol. L.	Histology			Anatomy		
Sat.	Histol. L.		Histology					

# FIRST YEAR—SESSION OF 1931-1932—SECOND TERM

	8	9	10	11	11.30	I	2	3
Mon.		ANATOMY				N	ervous Syste	:m
Tues.	Biochem. L.		Physiology		Physiology			
Wed.	Physiol.	Biochem. L.	Biochemistry		Nervous System			
Thurs.	Physiol.	Biochem. L.	Physiology		1	Biochemistry		
Fri.	Physiol. L.	Biochem. L.	Biochemistry		N	ervous Syste	m	
Sat.	Physiol.	Biochem. L.		Biochemis	try			





#### GRADUATE WORK AT ITHACA

#### ADMISSION

The Graduate School has exclusive control of all graduate work carried on in the University. Graduates of the following colleges of Cornell University, namely, the College of Arts and Sciences, the College of Architecture, the College of Engineering, the Medical College, the New York State College of Agriculture, the New York State College of Home Economics, the Law School and the New York State Veterinary College, and also graduates of other institutions in which the requirements for the first degree are substantially equivalent, are eligible for admission to the Graduate School. In other cases studies pursued after graduation, and experience gained by professional work or otherwise, are taken into consideration in deciding whether the candidate's preparation as a whole is such as to justify his admission to the Graduate School. Graduates of colleges other than those of Cornell University may be admitted to the Graduate School. but not to candidacy for an advanced degree, if their training is regarded as less than one year short of that required for the first degree at Cornell University.

In order to be admitted to the Graduate School, a student must furnish evidence that he has already received a first degree, by presenting either a diploma or a statement from some official source. The simplest procedure will ordinarily be to submit an official statement from the registrar or dean that the degree has been conferred. In the case of graduates of Cornell University this is not necessary, since the

records are conveniently accessible.

To avoid delays at the beginning of the academic year, those who desire to enter the Graduate School are advised to make application for admission, either in person or by letter, in the preceding spring or summer. Correspondence should be addressed to the Dean of the

Graduate School, Cornell University, Ithaca, New York.

For details in regard to the selection of major and minor subjects, special committees in charge of the work of each candidate for an advanced degree, fees, time required, thesis, and special conditions to be fulfilled by each candidate for an advanced degree, reference should be made to the Announcement of the Graduate School.

#### **FACILITIES**

The facilities of the Departments of Anatomy, Histology and Embryology, Physiology and Biochemistry, have been outlined under the description of each department. These are equally available for the use of the graduate students and for medical students.

#### FELLOWSHIPS AND GRADUATE SCHOLARSHIPS

Among the twenty-four fellowships and eighteen scholarships offered annually to students in the Graduate School, the following are of particular interest to students continuing work in biological sciences: The Schuyler Fellowship in Animal Biology (annual value of \$400 and free tuition in the Graduate School).

THE GRADUATE SCHOLARSHIP IN ANIMAL BIOLOGY (annual value of \$200 and free tuition in the Graduate School).

#### THE COMBINED A.B. AND M.D. DEGREES

The Medical College advises students to complete, whenever feasible, the full four-year A.B. Course before applying for admission to this College. It is possible, however, to be admitted to the Medical College under Section II of the entrance requirements. This is to provide for those students who, by specially directed or especially proficient work, accomplish the essential requirements for the Arts degree during three years of college residence. No students are admitted under this classification unless their college faculty will permit them to substitute the first year in the Cornell University Medical College for the fourth year of their college course, and no student is admitted to the second year in the Medical College without the bachelor's degree obtained after at least three years of undergraduate college work.

The first year in the Medical Course, which may be taken in place of the fourth year of the arts work, may be pursued either in Ithaca or in New York City. If all the work of this year is completed satisfactorily the student receives the degree of A.B. or its equivalent, and is permitted to take the last three years of the medical work. These are taken entirely in the Cornell University Medical College in New York City.

For the convenience of college students preparing for medicine, a schedule of the courses in the College of Arts and Sciences of Cornell University, in Physics, Chemistry, and Biology, which will satisfy the requirements for admission to the Medical College, is given below. If a student is taking four years in an arts college, these courses may be taken later in the course than indicated. It is important that the order given in the outline should be followed in the main, as certain of these courses are prerequisite for other prescribed courses. In addition to the courses required for admission to the Medical College, the student will take all courses in English, Foreign Language, Philosophy and Psychology, History, Mathematics, Economics and Government which are prescribed by the College of Arts and Sciences. It is advised that all these underclass requirements be completed before the beginning of the junior year.

The courses which the Medical College requires of its applicants for

admission, and planned for the student who expects to finish his arts courses in three years are thus outlined:—

#### FIRST YEAR IN ARTS

		Ist Term.	2nd Term.
	Course	Hours	Hours
	No.	Credit.	Credit.
Animal Biology (Introductory Zoology)	I	3	3
Chemistry (Introductory Inorganic)	IOI		3
Chemistry (Introductory Inorganic)	105		3
SECOND YEAR IN	Arts		
Animal Biology (Comparative Anatomy and			
morphology of vertebrates)	ΙI	3	3
Chemistry (Introductory Qualitative Anal-			· ·
ysis)	210	3	
Chemistry (Introductory Quantitative			
Analysis)	225		3
Physics (Introductory Experimental)	3&4	3	3
Third Year in Ar	TS		
Chemistry (Elementary Organic)	375	6	
Animal Biology (Histology and Histo-	075		
genesis of the tissues)	IOI	4	
Animal Biology (Vertebrate Embryology)	104		5
Physics (Introductory Physical Experi-			
ments)	55	3	

It is desirable that included in, or in addition to the modern foreign language required for admission to the Medical College, students should obtain a reading knowledge of French and German.

Some of the additional courses suggested for election according to

the needs or desires of each individual student are:

In the group of Animal Biology, courses: 10—Cytology; 14—Genetics; 102—Histology and development of the organs; 105—Histology and histological methods; 221—Structure of the human body; 222—Anatomical methods; 303—Elementary human physiology; in Economics, in addition to the elementary course, courses 50, 51 and 54—Introduction to social science. Also courses in Psychology and additional courses in English and Public Speaking where these latter are needed.

# STUDENTS, 1931–1932

# CANDIDATES FOR DEGREE OF DOCTOR OF MEDICINE

#### FOURTH YEAR

Orrin Emanuel Anderson, B.S., 1928, Muskingum College New York, N. Y. Philip Ashman, A.B., 1928, Cornell University New York, N. Y. Thomas Ralph Austin, B.S., 1926, University of Arizona Chandler, Ariz. Rudolf Friedhold Bachmann, B.S., 1928, Harvard University Waltham, Mass. Charles Jones Baker, A.B., 1928, Tufts College Pittsfield, Mass. Vincent Harold Beeaker, A.B., 1928, University of Maine Rumford, Maine William Troy Bivings, Jr., B.S., 1927, Emory University Atlanta, Ga. Charles Kevork Bogoshian, A.B., 1928, Hamilton College Utica, N. Y. New York, N. Y. May Annette Borquist, A.B., 1923, Reed College Daniel Joseph Bradley, B.S., 1928, University of Notre Dame New York, N. Y. Daniel Francis Brophy, B.S., 1920, College of the City of New York, A.M., 1924, Columbia University New York, N. Y. Frederic Scott Carr, B.S., 1928, Tufts College Kingston, N. Y. John Girard Connell, A.B., 1929, Cornell University Meriden, Conn. William Alexander Cooper, A.B., 1928, Stanford University Mountain View, Calif. Charles Hubbard Cornish, A.B., 1928, Cornell University Maplewood, N. J. Jesse Potter Eddy, 3rd, Ph.B., 1928, Brown University Providence, R. I. Marion Fairfield, A.B., 1928, Wellesley College Hanover, N. H. Havelock Frank Fraser, A.B., 1925, University of Washington Bellingham, Wash. Jamaica, L. I., N. Y. Constance Friess, A.B., 1928, Barnard College Raymond Gettinger, B.S., 1926, College of the City of New York New York, N. Y. William Casper Goldwin, A.B., 1924, Cornell University Brooklyn, N. Y. Donald Carr Griffin, A.B., 1922, Dartmouth College, A.M., 1925, Columbia University New York, N. Y.

Harriet Louise Hardy, A.B., 1928, Wellesley College Michael John Hogan, A.B., 1929, University of Utah Alan Lawrence Jacobs, A.B., 1928, Columbia University Leif Yngue Jacobsen, A.B., 1928, Columbia University Carl Conrad Janowsky, A.B., 1929, Cornell University Herbert Maltby Jones, A.B., 1929, Cornell University Merrill Edward Joss, A.B., 1929, Columbia University Edmund Noah Joyner, 3rd, B.S., 1927, Virginia Military Institute Margaret Mathilde Klumpp, B.S., 1928, Tufts College Henry Carnie Lawson, A.B., 1928, Brown University

Joseph Howard Marvin, B.S., 1925, B.S.S., 1926, College of the

City of New York, M.A., 1926, Columbia University Jack Masur, B.S., 1928, New York University William Bernard McDonough, B.S., 1930, University of Wisconsin Harold Russell Meyers, Jr., A.B., 1927, M.S., 1929, Brown University New York, N. Y. Walter Modell, B.S., 1928, College of the City of New York Marjory Jarvis Nelson, A.B., 1928, Barnard College Lincoln Rahman, A.B., 1923, Cornell University Salvatore Rainone, A.B., 1929, Cornell University Mary Davis Ridgway, A.B., 1929, Cornell University Harry Melvin Rose, A.B., 1928, Yale University Max Rosen, B.S., 1928, College of the City of New York

Robert Edward Rothenberg, A.B., 1929, Cornell University

New York, N. Y. New York, N. Y. La Crosse, Wis. New York, N. Y. New York, N. Y.

Baltimore, Md.

Pocatello, Idaho

New York, N. Y.

New York, N. Y.

New York, N. Y.

Washington, D. C.

Auburn, N. Y.

Savannah, Ga.

New York, N. Y.

Fall River, Mass.

Ossining, N. Y. New York, N. Y. White Church, N. Y. Niles, Ohio

> New York, N. Y. New York, N. Y.

Dorothy Katherine Scheidell, A.B., 1928, Barnard College Jeffersonville, N. Y. Abbey David Seley, A.B., 1928, New York University New York, N. Y. Howard Paul Serrell, B.S., 1928, Dartmouth College Montvale, N. J. Thomas Eugene Shaffer, A.B., 1929, Cornell University Williamsport, Pa. Stephen Huntington Sherman, A.B., 1926, Yale University Bridgeport, Conn. Thomas Dick Slagle, A.B., 1928, University of North Carolina Franklin, N. C. Frank Adelbert Spellman, Jr., Ph.B., 1928, Brown University Somers, Conn. Albert North Stevenson, Jr., A.B., 1925, Amherst College Port Washington, N. Y. Joseph Martin Swindt, A.B., 1928, Pomona College Pomona, Calif. Joseph Arthur Tamerin, B.S., 1928, New York University Hudson, N. Y. Ynez Coit Tyler, A.B., 1930, University of California San Francisco, Calif. John Pettit West, Jr., B.S., 1927, Alabama Polytechnic Institute Clayton, Ala. Herman Edwin Wirth, B.S., 1928, New York University New York, N. Y. Alexander Wolf, A.B., 1928, Columbia University Jersey City, N. J. Benjamin Zimmerman, A.B., 1929, Cornell University White Plains, N. Y. Seymour Zucker, A.B., 1928, Columbia University New York, N. Y.

#### THIRD YEAR

John Lamont Alley, A.B., 1929, Princeton University New York, N. Y. Charles Woodruff Beattie, A.B., 1929, Cornell University Binghamton, N. Y. Alberic Hyacinthe Bellerose, Jr., A.B., 1929, Dartmouth College Rutland, Vt. Corry, Pa. New York, N. Y. Donald Weeks Bogart, A.B., 1927, Dartmouth College Nils William Bolduan, A.B., 1929, Columbia University William Jerome Bruckner, B.S., 1929, New York University New York, N. Y. Frank Albertus Moore Bryant, A.B., 1930, Cornell University Mt. Vernon, N. Y. Phillips Kay Champion, A.B., 1930, Cornell University Philadelphia, Pa. Willard James Chapin, A.B., 1930, Cornell University Leicester, N. Y. Virgil Alfred Christenson, A.B., 1930, University of Utah Salt Lake City, Utah Mario Salvatore Cioffari, A.B., 1928, Cornell University New Rochelle, N. Y. New York, N. Y. August Reynolds Crane, A.B., 1929, Hamilton College John Haag Eckel, B.S., 1929, New York University Mt. Vernon, N. Y. Leon Herbert Ehrlich, B.S., 1929, College of the City of New York New York, N. Y. Francis Xavier Fagan, Ph.B., 1929, Brown University Waterbury, Conn. Jamestown, N. Y. Katherine Ellen Falconer, A.B., 1929, Wellesley College Wayne Wetmore Fox, A.B., 1929, Harvard University Fulton, N. Y. Francis Gillen Genin, B.S., 1930, Pennsylvania State College Jeannette, Pa. Walter Henry Hagen, B.S., 1929, Rutgers University Maplewood, N. J. Edward Aloies Hagmann, A.B., 1929, Pomona College Redlands, Calif. Thomas Gray Harvey, B.S., 1930, University of Maine Fort Fairfield, Maine Harold Gerard Higgins, A.B., 1930, Cornell University New York, N. Y. Robert John Hochland, A.B., 1929, University of Michigan New York, N. Y. Willard LeRoy Hogeboom, A.B., 1930, Cornell University Binghamton, N. Y. Corning, N. Y. Robert Imrie Hood, A.B., 1930, Cornell University Reeve Scott Howland, A.B., 1930, Cornell University Elmira, N. Y. Betty Huse, A.B., 1929, University of Wisconsin New York, N. Y. Eleanor Randall Ives, A.B., 1926, University of Southern California Alhambra, Calif. Margaret Holden Jones, A.B., 1925, Radcliffe College, A.M., 1927, Vassar College Portland, Maine

A.M., 1927, Vassar College

Gerald Klatskin, A.B., 1929, Cornell University
Irving Ludwig Kohn, A.B., 1929, Cornell University
Harold Horn Lowenstein, A.B., 1930, Cornell University
Ruth Isabel Lyman, A.B., 1930, Cornell University
John Gurnsey Malia, A.B., 1930, University of Utah
Norman Margolius, A.B., 1929, Cornell University
Virgil Andrew Mason, A.B., 1928, Wabash College

Portland, Maine
New York, N. Y.
New York, N. Y.
Salt Lake City, Utah
Catskill, N. Y.
Rossville, Ind.

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Paul Theodore McAlpine, A.B., 1930, Colgate University New York, N. Y. Isabel McConagha, A.B., 1927, Westminster College George John McDonnell, B.S., 1929, University of Notre Dame New Wilmington, Pa. Keansburg, N. J. Frederick Hamilton Merrill, A.B., 1926, Princeton University New York, N. Y. George Burroughs Mider, A.B., 1930, Cornell University Canisteo, N. Y. William Jameson Neidlinger, B.S., 1929, Rutgers University Plainfield, N. J. Colgate Bennett Phillips, A.B., 1929, Williams College New York, N. Y. George Benjamin Putman, B.S., 1929, Harvard University Marceline, Mo. Charles Ely Rieser, B.S., 1925, College of the City of New York New York, N. Y. David John Roberts, B.S., 1931, University of Wisconsin Cambria, Wis. Elise Genevieve Schlosser, A.B., 1929, Barnard College New York, N. Y. Rutherford, N. J. Rudolph Charles Schretzmann, A.B., 1929, Cornell University Beryl Whittier Scully, A.B., 1929, Earlham College Rome, N. Y. Horace Irwin Slater, Ph.B., 1929, Brown University Port Chester, N. Y. Wallace Trezer Smith, A.B., 1930, Cornell University Rockaway, N. Y. William Bliss Stocking, A.B., 1930, Cornell University Ithaca, N. Y. Emily Eliot Sturgis, A.B., 1929, Wellesley College Chevy Chase, Md. William John Sullivan, A.B., 1930, Cornell University Auburn, N. Y. Harry Dan Vickers, A.B., 1929, Colgate University Little Falls, N. Y. Eleanor Webb, A.B., 1929, Wellesley College New York, N. Y. Herman Irving Wortis, A.B., 1929, New York University Brooklyn, N. Y. William Otto Wuester, Jr., A.B., 1929, New York University Pompton Lakes, N. J.

#### SECOND YEAR

Elizabeth Clarice Adams, A.B., 1926, Wellesley College, M.S., 1930, New York University George Newton Ballentine, B.S., 1930, Bucknell University Virginia Barrett, A.B., 1931, Cornell University Theodore Charles Bauerlein, A.B., 1928, St. Mary's College Michael Steven Brody, B.S., 1928, New York University Frederick Robert Brown, A.B., 1931, Cornell University Veronica Cecelia Brown, A.B., 1925, Cornell University Peter Louis Carnesale, A.B., 1930, Cornell University Robert LaT. Cavenaugh, A.B., 1930, Cornell University Walter Irving Chapman, A.B., 1930, Johns Hopkins University Charles Gardner Child, 3rd, A.B., 1930, Yale University Joseph Arvine Coleman, A.B., 1931, Cornell University Nathaniel Cooper, B.S., 1929, College of the City of New York William Thomas Doran, Jr., A.B., 1930, Dartmouth College William Harrison Eberle, A.B., 1931, Cornell University William Epstein, B.S., 1930, College of the City of New York Kenneth Tyne Fairfax, A.B., 1931, Cornell University Gladys Jeannette Fashena, A.B., 1929, Hunter College,

A.M., 1930, Columbia University
Dorothy Loomis Frame, A.B., 1930, Vassar College
Nathan Baruch Friedman, A.B., 1930, Harvard University
Otto S. Hensle, B.S., 1930, Washington and Jefferson College
John Winslow Hirshfeld, A.B., 1930, Cornell University
Marion Hotopp, A.B., 1921, Mount Holyoke College
Heloise Beekman Hough, A.B., 1929, Barnard College
Charles Alderson Janeway, A.B., 1930, Yale University
Percy Hall Jennings, Jr., A.B., 1930, Yale University
Joseph John Kanich, A.B., 1931, Cornell University
Earl Parsons Lasher, A.B., 1931, Cornell University
Leon Samuel Loizeaux, Jr., 1931, Cornell University

Willsboro, N. Y. Lewisburg, Pa. Sayre, Pa. Topeka, Kans. New Brunswick, N. J. Floral Park, N. Y. New York, N. Y. New York, N. Y. Berkeley, Calif. Westwood, N. J. New York, N. Y. New York, N. Y. New York, N. Y. New York, N. Y. Ashtabula, Ohio New York, N. Y. Geneva, N. Y.

New York, N. Y.
Rutherford, N. J.
Detroit, Mich.
New York, N. Y.
New York, N. Y.
Greenwich, Conn.
New York, N. Y.

New York, N. Y.

New York, N. Y.

Coaldale, Pa. Yonkers, N. Y. New York, N. Y.

Donald Cameron Malcolm, B.S., 1930, Washington and Jefferson C	ollege Indiana, Pa.
Thomas Poultney Ellicott Mathews, A.B., 1930, Columbia Univers	ity Yonkers, N. Y.
Helen Maria McKee, B.S., 1927, Connecticut College	W. Roxbury, Mass.
John Milton McLean, M.E., 1930, Stevens Institute of Technolog	y New York, N. Y.
	New York, N. Y.
James Alexander Moore, A.B., 1930, Cornell University	Albany, N. Y.
Robert Emmet Mountain, A.B., 1931, Cornell University	Olean, N. Y.
Harry Maurice Murphy, A.B., 1931, Cornell University	Buffalo, N. Y.
Roger Burdette Nelson, A.B., 1930, Cornell University	Jamestown, Mass.
	w Philadelphia, Ohio
Ernest Venner Reynolds, A.B., 1930, Williams College	Barre, Vt.
Augustine Thornton Scott, A.B., 1930, Princeton University	Lexington, Ky.
Henry Thomas Sherman, B.S., 1930, Emory University	Blakely, Ga.
Vincent Joseph Simmon, A.B., 1929, Amherst College	New York, N. Y.
Wilson Fitch Smith, Jr., Ph.B., 1930, Yale University	New York, N. Y.
Harry Strongin, A.B., 1931, Cornell University	New York, N. Y.
Howard Taylor Stuch, A.B., 1929, University of Michigan	Allegan, Mich.
Clarence Benjamin Taft, A.B., 1928, Harvard University	New York, N. Y.
Henry Bernard Tillman, Ph.B., 1930, Brown University	Springfield, Mass.
Harry Goodwin Tounge, Jr., B.S., 1930, University of New Ham	pshire
	Malden, Mass.

Duane Billings Walker, A.B., 1931, Cornell University
William Rankin Ward, Jr., A.B., 1930, Colgate University
LeRoy Hamilton Wardner, A.B., 1931, Cornell University
William Patrick Whalen, A.B., 1930, Fordham University
Edward Thomas Yorke, B.S., 1930, University of Notre Dame

Hadden, Hazarian Rochester, N. Y.
Saranac Lake, N. Y.
New York, N. Y.
Carteret, N. J.

#### FIRST YEAR

Folke Becker, Cornell University*	New York, N. Y.
Perry Sanborn Boynton, Jr., A.B., 1931, Dartmouth College	New York, N. Y.
Cornelius Persen Brink, B.S., 1931, Middlebury College	Elizabeth, N. J.
Walter Fuchsius Bugden, B.S., 1931, Tufts College	New Rochelle, N. Y.
James Francis Butler, B.S., 1931, Georgetown University	New York, N. Y.
Maryemma Josephine Callahan, A.B., 1931, Trinity College	New York, N. Y.
John Cannon, A.B., 1931, Williams College	New York, N. Y.
Henry Ashley Carr, A.B., 1931, Princeton University	Philadelphia, Pa.
Elizabeth Panet Chittenden, A.B., 1931, Vassar College	Greenwich, Conn.
Arthur Gerard DeVoe, A.B., 1931, Yale University	New York, N. Y.
Marshall Fletcher Driggs, Ph.B., 1931, Yale University	New York, N. Y.
John Arthur Evans, B.S., 1931, New York University	New York, N. Y.
Charles Cauldwell Foote, Ph.B., 1931, Yale University	New York, N. Y.
Floyd Fortuin, Columbia University*	Paterson, N. J.
Constance Starr Gilbert, A.B., 1926, Wellesley College	Sharon, Conn.
David Gold, A.B., 1931, Union College	Schenectady, N. Y.
Stephen Howatt Harris, Ph.B., 1930, Brown University	Valley Falls, R. I.
Robert Williams Hedges, B.S., 1931, Princeton University	Plainfield, N. J.
Henry Miles Imboden, B.S., 1931, Franklin and Marshall College	
Charles Edward Jacobsen, B.S., 1931, Trinity College	Perth Amboy, N. J.
Edward Francis Keefe, Jr., B.S., 1931, College of the City of No	
2 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	New York, N. Y.
Saul Rosenthal Koloon A.R. Toos A.M. Toos Commell University	

New York, N. I.

Saul Rosenthal Kelson, A.B., 1930, A.M., 1931, Cornell University Syracuse, N. Y.

Alexander Duncan Langmuir, A.B., 1931, Harvard College
Englewood, N. J.

Edwin Vance Lawry, A.B., 1931, Stanford University Palo Alto, Calif.

John Goeller Leuthner, A.B., 1931, Princeton University Minneapolis, Minn.

William Boyd Mathews, A.B., 1931, Pomona College Upland, Calif.

<sup>\*</sup> Admitted under Clause II.

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William Dennis McCarthy, Ph.B., 1931, Brown University Robert Edward Merritt, B.S., 1931, University of Nevada Mary Compton Moss, A.B., 1929, Barnard College Hailes LaGue Palmer, Ph.B., 1931, Brown University Boris Petroff, A.B., 1931, Cornell University Albert Carroll Redmond, B.S., 1931, Hamilton College Lucien Griggs Rice, A.B., 1931, University of New Mexico Samuel Henry Roberts, B.S., 1931, College of the City of New	Lonsdale, R. I. San Francisco, Calif. Babylon, N. Y. Providence, R. I. Upper Montclair, N. J. New York, N. Y. Albuquerque, N. M. v York New York, N. Y.
George Goble Sale, B.S., 1931, Bucknell University Grant Sanger, B.S., 1931, Princeton University William Alvert Sibrans, B.S., 1931, Fordham University Edward Fuller Stanton, B.S., 1926, University of Maine James William S. Stewart, B.S., 1931, College of the City of N	Lewisburg, Pa. Fishkill, N. Y. New York, N. Y. Hartford, Conn. New York
Chris Burton Stockton, B.S., 1930, University of Nevada Everett Doenbush Sugarbaker, B.S., 1931, Wheaton College Howard Townsend, Jr., A.B., 1922, Harvard University Charles Hathorn Wheeler, B.S., 1931, Princeton University	New York, N. Y. Bakersfield, Calif. Hawthorne, N. J. New York, N. Y. Upper Montclair, N. J.
FIRST YEAR AT ITHACA	
Weldon Thomas Baker, A.B., 1931, Cornell University Maxwell Rufus Berry, Jr., A.B., 1931, Cornell University Katherine Butler, A.B., 1920, Mount Holyoke College John Heckman Burke, Jr., Cornell University* Daniel Innes Dann, B.S., 1931, Bucknell University Phyllis Amanda Dooley, Cornell University* Ralph Howard Edson, A.B., 1931, Princeton University George Granville Flenner, A.B., 1931, Cornell University	Houston, Texas Shaker Heights, Ohio Providence, R. I. Elmira, N. Y. Canton, Pa. Summit, N. J. Washington, D. C. Hamilton, Ohio
Harry Heim Henderson, B.S., 1931, Washington and Jefferson	College
Joseph Lee Hollander, Cornell University* Glenn Edwin Kingsley, A.B., 1931, Cornell University Edward Augustus Loeb, B.S., 1931, Rutgers University William Theophil Medl, Cornell University* Frederick Scoville Nicoll, B.S., 1931, Washington and Jefferson	Wheeling, W. Va. Philadelphia, Pa. Lorain, Ohio Atlantic City, N. J. Brooklyn, N. Y.
	New York, N. Y.
George Benton Sanders, Cornell University* Charles Herman Snyder, Jr., Cornell University* Charles Greaves Stetson, A.B., 1931, Cornell University John Howard Thomas, A.B., 1931, Cornell University Jefferson Weed, A.B., 1929, Union College Heins Wichman, B.S., 1931, New York University Albert Mansfield Yunich, A.B., 1931, Cornell University	Columbia, Pa.  y Stoneham, Mass. Richmond Hill, N. Y. Cleveland Heights, Ohio New York, N. Y. Oswego, N. Y. Milford, Conn. Youngstown, Ohio Garden City, N. Y. Floral Park, N. Y. Albany, N. Y.
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First Year at Ithaca	
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#### GRADUATE STUDENTS

#### (Not Candidates for a Degree)

- Henry Sage Fenimore Cooper, A.B., 1917, Yale University (Anatomy)
  - M.D., 1924, Harvard University New York, N. Y.
- William Nathan Etkin, B.S., 1928, College of the City of New York (Physiology)
- James Francis Faulkner, A.B., 1908, Bates College (Anatomy)
- M.D., 1913, Harvard University

  New York, N. Y.
- Charles Collins Francis, A.B., 1914, Syracuse University (Anatomy)
  M.D., 1919, New York University
  New York, N. Y.
- Edwin George Langrock, M.D., 1909, Cornell University (Anatomy) New York, N. Y.
- Sylvia Lieber, B.S., 1930, New York University (Clinical Pathology)
- New York, N. Y. Saul Schapiro, B.S., 1921, University of Wisconsin (Anatomy)
- M.D., 1923, Yale University

  New York, N. Y.
  Robert Shapiro, B.S., 1930, New York University (Clinical Pathology)
- New York, N. Y.
  Oscar Wald, M.D., 1914, Fordham University (Anatomy)
  New York, N. Y.

# GRADUATE STUDENTS

# (CANDIDATES FOR PH.D.)

- Dugald Edmund Smith Brown, A.B., 1924, A.M., 1925, University of Michigan
- Huntington, N. Y. Arthur Marston Crossman, B.S., 1925, Dartmouth College,
- M.A., 1927, Columbia University

  Lancaster, N. H.
- Margaret Dann, A.B., 1923, Oberlin College; M.S., 1925, University of Illinois East Orange, N. J.
- Ella Foster Grove (Special work in Immunology)

  Beverly, Mass.

  Selma May Schultze, A.B., 1926, Columbia University; A.M., 1930, Cornell University
- William Hanny Summaran P. Cham. 2027 A.M. 2028 Carnell Liversian
- William Henry Summerson, B.Chem., 1927, A.M., 1928, Cornell University
  New York, N. Y.









## CORNELL UNIVERSITY

The GRADUATE SCHOOL (Degrees A.M., Ph.D., etc.)

The COLLEGE OF ARTS AND SCIENCES (Degrees A.B. and B.Chem.)

The COLLEGE OF LAW (Degree LL.B.)

The MEDICAL COLLEGE\* (Degree M.D.)

The NEW YORK STATE VETERINARY COLLEGE (Degree D.V.M.)

The COLLEGE OF AGRICULTURE (Degree B.S.)

The COLLEGE OF ARCHITECTURE (Degree B.Arch.)

The COLLEGE OF CIVIL ENGINEERING (Degree C.E.)

The SIBLEY COLLEGE of Mechanical Engineering and Mechanic Arts (Degree M.E.)

For copies of the University Publications and for additional information apply to SECRETARY, CORNELL UNIVERSITY,

Ithaca, N.Y.

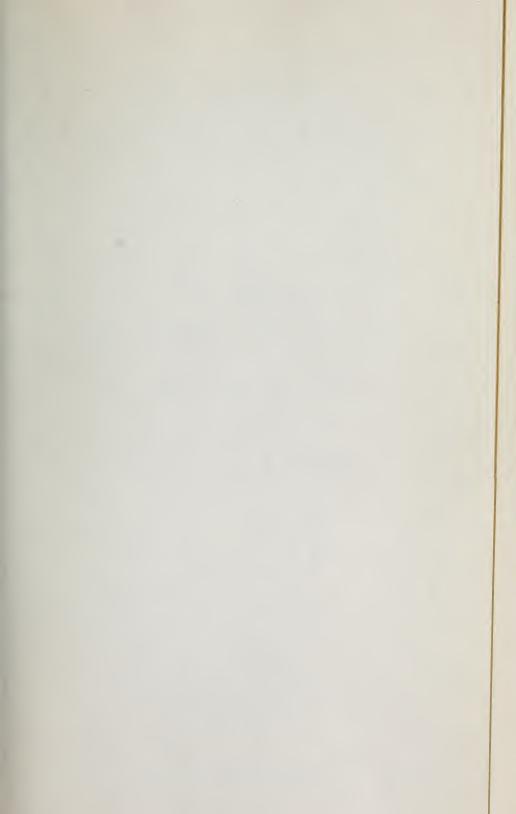
\*The full four-year course of the CORNELL UNIVERSITY MEDICAL COLLEGE is given in the City of New York; the work of the first year is also given at Ithaca. Any student may take the first year either at New York City or at Ithaca. All students take the last three years of the course in New York City only. Special announcement of the Medical College and information of every kind regarding all four years will be furnished on application to

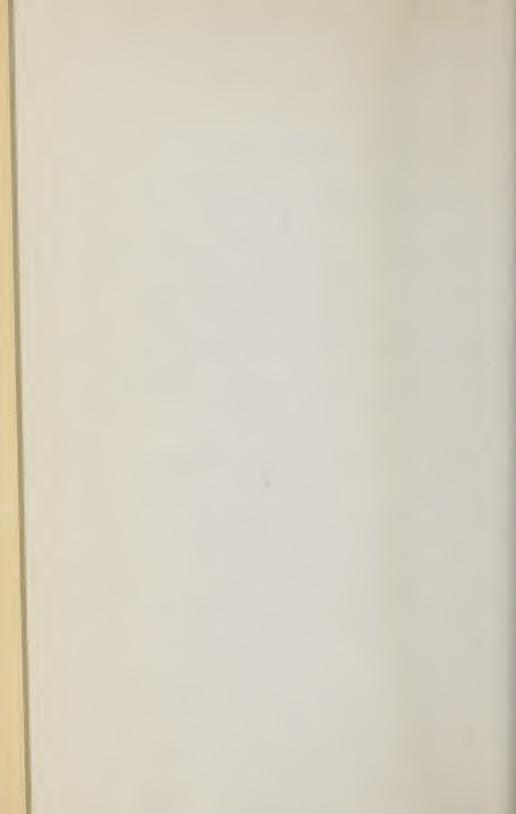
SECRETARY, Cornell University Medical College, First Avenue and 28th Street, New York City.

or (regarding first year at Ithaca),

SECRETARY, Cornell University Medical College,

Stimson Hall, Ithaca, N. Y.





Jy. Michols

# CORNELL UNIVERSITY OFFICIAL PUBLICATION

Volume XXIV

Number 3

The Medical College for 1932-33

Ithaca, New York
Published by the University
August 1, 1932

NAME OF



# CORNELL UNIVERSITY OFFICIAL PUBLICATION

Volume XXIV

Number 3

Announcement of

# The Medical College for 1932-33

at 1300 York Avenue, New York City and the first year, also, at Ithaca, N.Y.

Ithaca, New York
Published by the University
August 1, 1932

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# **CALENDAR**

Sept. 19. Monday—Examinations begin for admission to the first year of all departments of Cornell University at Ithaca, N. Y. Examinations are held at the Medical College, New York City, for the con-

venience of residents.

Sept. 22. Thursday—Examinations begin for conditioned medical students.

Sept. 26. Monday—Registration Day.\* Assembly at 3:30 P.M.

Sept. 27. Tuesday, 9 A.M.—Instruction begins. First quarter and first trimester begin.\*\*

Nov. 8. Tuesday—Election Day. Legal Holiday.

Nov. 23. Wednesday, 6 p.m.—Thanksgiving recess begins. First quarter ends. Nov. 28. Monday, 9 A.M.—Thanksgiving recess ends. Second quarter begins. Dec. 22. Thursday, 6 p.m.—Christmas recess begins. First trimester ends.

1933

Jan. 4. Wednesday, 9 A.M.—Christmas recess ends. Second trimester begins.

Feb. 4. Saturday, 6 p.m. Second quarter ends. Feb. 6. Monday, 9 A.M.—Third quarter begins.

Feb. 22. Wednesday—Legal Holiday.

March 11. Friday, 6 P.M.—Second trimester ends.

March 13. Monday, 9 A.M.—Third trimester begins.

April 1. Saturday, 6 P.M.—Third quarter ends.

April 3. Monday, 9 A.M.—Fourth quarter begins.

April 13. Thursday, 6 P.M.—Easter recess begins.

April 17. Monday, 9 A.M.—Easter recess ends.
May 27. Saturday, 6 P.M.—Fourth quarter and third trimester end.

May 29. Monday, 9 A.M.—Examinations begin.

May 30. Tuesday—Legal Holiday.

June 8. Thursday, 4 P.M.—Commencement.

\*All students must register in person at the office of the Dean on or before September 26. No student will be admitted after Registration Day without special permission of the Associate Dean. Upon registration all fees must be paid at the business office.

\*\*The first year of the medical course is divided into trimesters; the second, third, and fourth years into quarters.

# **BOARD OF TRUSTEES**

The President of the University	\	Ithaca						
The Governor of New York State	1	Albany						
The Lieutenant-Governor of New York State	1.	Albany						
The Speaker of the Assembly	Ex-Officio	Albany						
The State Commissioner of Education	0	Albany						
The State Commissioner of Agriculture	fici							
	0.	Albany						
The President of the State Agricultural Society .	)	Albany						
The Librarian of the Cornell Library	1	Ithaca						
CHARLES EZRA CORNELL, A.B., LL.B	(7)	Ithaca						
*EZRA B. WHITMAN, C.E.	(B)	Baltimore, Md.						
*Henry Herman Westinghouse	(B)	New York						
*ROGER B. WILLIAMS, A.M	(B)	Ithaca						
*Bancroft Gherardi, M.E., M.M.E	(A)	New York						
*Jacob F. Schoellkopf, Jr., A.B	(A)	Buffalo						
*Myron C. Taylor, LL.B., LL.D	(G)	New York						
CUTHBERT W. POUND, LL.D	(B)	Lockport						
Edwin N. Sanderson, M.E	(A)	New York						
Walter C. Teagle, B.S	(B)	New York						
James W. Parker, M.E	(A)	Detroit, Mich.						
Alfred D. Warner, B.S	(A)	Wilmington, Del.						
George R. VanNamee, LL.B	(G)	New York						
August Heckscher	(B)	New York						
HENRY R. ICKELHEIMER, B.L	(B)	New York						
Charles M. Schwab	(B)	New York						
JOHN B. TUCK, B.L., LL.B	(A)	Syracuse						
MAXWELL M. UPSON, A.B., M.E., Eng.D	(A)	New York						
HORACE WHITE, A.B., LL.B	(G)	Syracuse						
Martin J. Insull, M.E	(B)	New York						
FRANK H. HISCOCK, A.B., LL.D	(B)	Syracuse						
J. DuPratt White, B.L	(B)	New York						
Frank E. Gannett, A.B	(A)	Rochester						
ROBERT E. TREMAN, A.B	(A)	Ithaca						
STANTON GRIFFIS, A.B	(G)	New York						
	(B)	11011 1011						
ROBERT H. TREMAN, B.M.E.	(B)	Ithaca						
Mynderse Van Cleef, B.S	(B)	Ithaca						
Mary M. Crawford, A.B., M.D.	(A)	New York						
Archie C. Burnett, LL.B.	(A)	Boston, Mass.						
Peter G. Ten Eyck	(G)	Albany						
	(Gr)	Ithaca						
HOWARD E. BABCOCK, Ph.B	(01)	Timaca						
FACULTY REPRESENTATIVES								
ERNEST G. MERRITT, M.E		Ithaca						
LIBERTY H. BAILEY, M.S., LL.D.		Ithaca						
		Y 1						

\*Term of office expires in 1933, the next group of six in 1934, etc. B, elected by the Board; A, elected by the Alumni; G, appointed by the Governor; Gr, elected by the State Grange.

Ithaca

George Young, Jr., B.Arch. . .

# THE NEW YORK HOSPITAL-CORNELL MEDICAL COLLEGE ASSOCIATION

The Association was formed by an agreement between the New York Hospital and Cornell University in order to associate organically the hospital and the medical college and to effect a complete cooperation of the medical, educational, and scientific activities of the two institutions.

The Association is operated under the supervision of a Joint Administrative Board, composed of three Governors of the New York Hospital, three representatives of the Trustees of Cornell University, and one other member elected by the appointed members.

The Joint Administrative Board is composed of the following mem-

bers:

EDWARD W. SHELDON, Chairman William Woodward Frank L. Polk

Livingston Farrand J. DuPratt White Walter L. Niles

J. PIERPONT MORGAN

#### MEDICAL COLLEGE COUNCIL

The Council was established by action of the Trustees of Cornell University for the purpose of making recommendations to the Board of Trustees or the Executive Committee in relation to the business management of the medical college. It is composed of the President of the University, the Director of the Medical College, three members of the Board of Trustees elected by the Trustees, and two members of the Medical Faculty elected by the Faculty.

The Council at present consists of the following members:

LIVINGSTON FARRAND, President of Cornell University, Chairman ex officio.

G. Canby Robinson, Director of the New York Hospital-Cornell Medical College Association.

H. H. Westinghouse, Myron C. Taylor,

of the Board of Trustees.

WALTER C. TEAGLE,

WILLIAM J. ELSER, JOHN A. HARTWELL, of the Faculty.

WALLACE LUND, Secretary.

# OFFICERS OF ADMINISTRATION

LIVINGSTON FARRAND, President.

G. CANBY ROBINSON, Director.

WILLIAM S. LADD, Associate Dean.

J. S. FERGUSON, Secretary of the Faculty.

WALLACE LUND, Secretary of Council and Business Manager

JESSIE P. Andresen, Secretary of Administration.

Josephine G. Nichols, Librarian.

# THE FACULTY AND TEACHING STAFF

#### THE FACULTY

LIVINGSTON FARRAND, Ph.D., M.D., President of Cornell University.

A.B. 1888, A.M. 1891, Princeton; M.D. 1891, Columbia; Ph.D. 1924, Rensselaer; L.H.D. 1922, Hobart; LL.D. 1914, Colorado College and Denver, 1917, Michigan, 1919 Colorado, 1922 Union, Princeton and Colgate, 1923 Yale, 1925 Pennsylvania and Dartmouth, 1927 Toronto, 1929 Columbia.

#### PROFESSORS EMERITI

Frederic S. Dennis, M.D. J. Clifton Edgar, M.D. George Woolsey, M.D. Irving S. Haynes, M.D. John Rogers, A.B., M.D. Frederick Whiting, M.D.

CHARLES L. GIBSON, M.D. CHARLES L. DANA, M.D.

WILLIAM L. RUSSELL, M.D.

Professor of Clinical Surgery, Emeritus
Professor of Obstetrics, Emeritus
Professor of Clinical Surgery, Emeritus
Professor of Clinical Surgery, Emeritus
Professor of Clinical Surgery, Emeritus
Professor of Clinical Surgery,

Department of Otology, Emeritus Professor of Surgery, Emeritus

Professor of Clinical Medicine,

Department of Neurology, Emeritus Professor of Psychiatry, Emeritus

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# THE TEACHING STAFF

#### LECTURER

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#### ASSOCIATES

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WILLIAM C. THRO, M.D.

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Radiologist

JOHN R. CARTY, M.D.

Associate Radiologist

Cornelius V. Kilbane, M.D.

Assistant Radiologists

ALEXANDER ALEXION, M.D. IRVING SCHWARTZ, M.D.

E. Forrest Merrill, M.D. Sydney Weintraub, M.D.

STEPHEN WHITE, M.D.

Assistant Resident in Radiology Elmer E. Claighbourne, M.D.

#### INTERNE STAFF

For one year from September 1, 1932

#### MEDICINE

SURGERY

CONSTANCE FRIESS, M.D.
JOHN A. LICHTY, M.D.
JAMES S. MANSFIELD, M.D.
CARL MUSCHENHEIM, M.D.
J. LAWRENCE POOL, M.D.
WILLIAM PAUL THOMPSON, M.D.

CHARLES M. BRANE, M.D. WILLIAM A. COOPER, M.D. PAUL S. HILL, JR., M.D. JOSEPH K. NEWTON, M.D. Service to begin Jan. 1, 1933 JOHN H. GRATIOT, M.D. G. A. HUMPHREYS, M.D.

#### OBSTETRICS AND GYNECOLOGY

Senior Internes

ROBERT L. CURRIE, M.D.
JAMES B. GULICK, M.D.
GERALD W. HUNTER, M.D.
CHARLES H. NICHOLS, M.D.
JOHN B. PASTORE, M.D.

Junior Internes

Ross E. Anderson, M.D.
Boardman M. Bosworth, M.D.
Clarence C. Evans, M.D.
James H. Mering, M.D.
Frederic R. Minnich, M.D.
Cloyce R. Tew, M.D.

**PEDIATRICS** 

Myron J. Adams, M.D.

IRVING LeBell, M.D.

**PSYCHIATRY** 

CECIL D. MURRAY, M.D.

WILLIAM B. TITLEY, M.D.

PATHOLOGY

HENRY BRODY, M.D. FLOYD H. BRAGDEN, M.D.

# STAFF OF OUT-PATIENT DEPARTMENT

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William J. Elser
John A. Hartwell
Walter C. Klotz

PAUL REZNIKOFF OSCAR M. SCHLOSS HERBERT F. TRAUT GERTRUDE BANFIELD HANNAH LOUISE JOSEPHI

# Director

# Walter C. Klotz

#### MEDICINE

# Physicians to Out-Patients

WILLIAM M. ARCHER, M.D.<sup>1</sup> AARON BELL, M.D.<sup>2</sup> ARTHUR F. KRAETZER, M.D.<sup>1</sup> DOUGLASS PALMER, M.D. Harold S. Belcher, M.D. Edmund R. P. Janvrin, M.D. Berton Lattin, M.D. Ray H. Rulison, M.D.

FIELDING TAYLOR, M.D.

# Assistant Physicians to Out-Patients

Joseph Amersbach, M.D. JAMES R. BEARD, JR., M.D.1 JAMES M. BETHEA, M.D. EDWARD A. BURKHARDT, M.D. Laila Coston Conner, M.D. EDWARD M. DODD, M.D. DAVID GLUSKER, M.D. CHARLES K. GOOD, M.D. MILTON HELPERN, M.D. SCOTT JOHNSON, M.D. ESTELLE KLEIBER, M.D. DOROTHEA C. LEMCKE, M.D. GEORGE M. LEWIS, M.D. VICTOR W. LOGAN, M.D. ARTHUR M. MASTER, M.D. ANNIE PARKS McCombs, M.D. ELIZABETH NICHOLLS, M.D. ANNA PLATT, M.D. HOWARD S. RIGGINS, M.D. JOHN B. SCHWEDEL, M.D. AARON D. SPIELMAN, M.D. EDWARD TOLSTOI, M.D. MATHEW WALZER, M.D. STEPHEN WHITE, M.D. A. A. ANTOVILLE, M.D.

GEORGE E. BINKLEY, M.D. THEODORE J. CURPHEY, M.D. JEAN A. CURRAN, M.D. FRANK M. FALCONER, M.D. EMIL A. FALK, M.D. JOHN H. HARRIS, M.D. Louis Hausman, M.D.<sup>2</sup> Janette Jennison, M.D. CHARLES KAUFMAN, M.D. ELIZABETH KNOX, M.D. LEON I. LEVINE, M.D. Julia V. Lichtenstein, M.D. ISABEL M. LONDON, M.D. KIRBY MARTIN, M.D. WILLIAM J. MERSEREAU, M.D. HENRY D. NILES, M.D.1 NORMAN PAPAE, M.D. ADA C. REID, M.D. THERESA SCANLAN, M.D. Mabel G. Silverberg, M.D. JOHN W. STICKNEY, M.D. MARIAN TYNDALL, M.D. JAMES H. WHALEY, JR., M.D. George J. Young, M.D. MORRIS M. ZUCKER, M.D.

<sup>&</sup>lt;sup>1</sup> Dermatology. <sup>2</sup> Neurology.

#### PSYCHIATRY

# Psychiatrists

EDWARD B. ALLEN, M.D. HILDA WOOD EIDSON, M.D. STANLEY S. KING, M.D. THOMAS H. HAINES, M.D. MICHAEL J. LONERGAN, M.D. GERALD R. JAMEISON, M.D. LILLIAN MALCOVE, M.D. OLGA KNOPF, M.D. LESLIE E. LUEHRS, M.D. LUCY C. MILLER, M.D. CHARLES G. McGAFFIN, M.D. GEORGE S. SPRAGUE, M.D. GEORGE S. STEVENSON, M.D. CHARLOTTE MUNN, M.D. JAMES W. WALL, M.D. HANS SYZ, M.D.

AUGUST E. WITZEL, M.D.

# Assistant Psychiatrists

DOROTHY S. BURDICK, M.D.

HUGH M. GALBRAITH, M.D.

HAMLIN A. STARKS, M.D.

JOEL M. HILL, M.D.

A. LOUISE BRUSH, M.D.

#### SURGERY

#### GENERAL SURGERY

Surgeons to Out-Patients

Pol N. Coryllos, M.D.

JOHN E. SUTTON, M.D.

# Assistant Surgeons to Out-Patients

ALICE R. BERNHEIM, M.D. D. REES JENSEN, M.D. CARLO PASCARELLI, M.D. ROBERT POLLOCK, M.D. A. V. WEINBERGER, M.D.

Francis Conway, M.D. Robert T. Findlay, M.D. Isabel M. London, M.D. Max Pickworth, M.D. H. E. S. Root, M.D.

#### UROLOGY

# Surgeon to Out-Patients WILLIAM R. DELZELL, M.D.

# Assistant Surgeons to Out-Patients

MIGUEL ALVAREZ, M.D.

ROBERT T. FINDLAY, M.D.

PETER J. RIABOFF, M.D.

WENDELL J. WASHBURN, M.D.

RUSSELL S. FERGUSON, M.D.

LEO MARQUITH, M.D.

H. E. S. ROOT, M.D.

#### OTOLARYNGOLOGY

# Surgeons to Out-Patients

EMMETT C. FITCH, M.D.

Thomas J. Garrick, M.D.

S. Farrar Kelley, M.D.

Thomas A. Mulcahy, M.D.

# Assistant Surgeons to Out-Patients

JACOB APPLEBAUM, M.D. ANNE S. BELCHER, M.D.

JAMES O. MACDONALD, M.D. ALBERT G. RAPP, M.D.

WILLIAM H. AYRES, M.D. HARRY R. FISHER, M.D. HERBERT GRAEBNER, M.D. MARGERAT S. MELCHER, M.D.

FERNAND VISZTREICH, M.D.

#### ORTHOPEDIC SURGERY

Assistant Surgeon to Out-Patients Charles L. Plunkett, M.D.

#### OPHTHALMOLOGY

Surgeons to Out-Patients

TRUMAN L. Boyes, M.D.

HARRY EGGERS, M.D.

Assistant Surgeons to Out-Patients

LOREN P. GUY, M.D. ARTHUR KNAPP, M.D.

Pearson Harrison, M.D.

ELIZABETH M. MACNAUGHER, M.D.

CHARLES A. DRAKE, M.D.

# BELLEVUE HOSPITAL

# SECOND MEDICAL DIVISION (CORNELL)

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# Consulting Physicians

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Charles L. Dana, M.D.

Eugene F. DuBois, M.D.

Malcolm Goodridge, M.D.

# Visiting Physicians

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Walter L. Niles, M.D.

Henry B. Richardson, M.D.

Henry J. Spencer, M.D.

# Associate Visiting Physicians

Samuel Brock, M.D.

Russell L. Cecil, M.D.

Thomas K. Davis, M.D.

Cary Eggleston, M.D.

Asa L. Lincoln, M.D.

Paul Reznikoff, M.D.

John H. Richards, M.D.

Lewis D. Stevenson, M.D.

# Assistant Visiting Physicians

AARON BELL, M.D.<sup>1</sup>

ALFRED H. EHRENCLOU, M.D.<sup>1</sup>

LOUIS HAUSMAN, M.D.<sup>1</sup>

GEORGE H. HYSLOP, M.D.<sup>1</sup>

DAN H. WITT, M.D.

ROBERT O. LOEBEL, M.D.

NORMAN PLUMMER, M.D.

EPHRAIM SHORR, M.D.

WENDELL J. STAINSBY, M.D.

S. BERNARD WORTIS, M.D.<sup>1</sup>

# Clinical Assistant Visiting Physicians

James M. Bethea, M.D.

Edward A. Burkhardt, M.D.

Edith E. Nicholls, M.D.

Resident Physician
BYARD WILLIAMS, M.D.

#### BELLEVUE HOSPITAL

# SECOND SURGICAL DIVISION (CORNELL)

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- A. Raymond Stevens, M.D., Director, Urological Service

Consulting Surgeons

John A. Hartwell, M.D. Edward L. Keyes, M.D.<sup>2</sup>
George Woolsey, M.D.

<sup>1</sup> Neurology. <sup>2</sup> Urology.

Visiting Surgeons

HERBERT BERGAMINI, M.D. RUSSEL H. PATTERSON, M.D.

JOHN ROGERS, M.D. A. RAYMOND STEVENS<sup>2</sup>

# Associate Visiting Surgeons

Henry S. F. Cooper, M.D. Howard S. Jeck, M.D.<sup>2</sup> Joseph E. J. King, M.D.<sup>1</sup> Walter J. McNeill, M.D.<sup>2</sup> Byron S. Stookey, M.D.<sup>1</sup> John E. Sutton, Jr., M.D.

# Assistant Visiting Surgeons

MEREDITH F. CAMPBELL, M.D.<sup>2</sup> GEORGE A. CASHMAN, M.D.<sup>2</sup> CLIVE W. COLLINGS, M.D.<sup>2</sup> WILLIAM R. DELZELL, M.D.<sup>2</sup> ROBERT K. FELTER, M.D. DOROTHY A. KLENKE, M.D.<sup>1</sup>

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MAX S. ROHBE, M.D.<sup>2</sup>
EDWARD W. SAUNDERS, M.D.
JOHN E. SCARFF, M.D.<sup>1</sup>
FRANCIS A. SUTHERLAND, M.D.
WILFRED B. WINGEBACH, M.D.<sup>1</sup>

# Clinical Assistant Visiting Physicians

Joseph L. Boehm, M.D.<sup>2</sup> H. A. Coveler, M.D.<sup>2</sup> H. J. Friedman, M.D.<sup>2</sup> Joseph Gorga, M.D.<sup>2</sup> Harry Hausman, M.D.<sup>2</sup> William P. McNamara, M.D.<sup>1</sup> Megirdich Mongoian, M.D.<sup>2</sup> J. H. O'Connor, M.D.<sup>2</sup> A. S. Sanders, M.D.<sup>2</sup> Chester T. Stone, M.D.<sup>2</sup>

Assistant Radiologist
JACOB BUCKSTEIN, M.D.

Surgical Bacteriologist
PENELOPE MARSH, A.B.

<sup>1</sup> Neurology. <sup>2</sup> Urology.

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James Ewing, M.D., Director

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H. C. Coe, M.D.

George H. Mallett, M.D.

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I.D. WALTER L. NILES, M.D. ARTHUR L. HOLLAND, M.D.

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Neurologist

FOSTER KENNEDY, M.D.

Laryngologists

D. Bryson Delavan, M.D.

HARMON SMITH, M.D.

Urologist

EDWARD L. KEYES, M.D.

Roentgenologists

LEWIS GREGORY COLE, M.D.

HARRY M. IMBODEN, M.D.

Dental Surgeon

WILLIAM W. SHEPARD, D.D.S.

Statistician

PROFESSOR WALTER F. WILLCOX

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Attending Surgeons

WILLIAM B. COLEY, M.D. BURTON J. LEE, M.D.

Benjamin S. Barringer, M.D.<sup>1</sup> William P. Healy, M.D.<sup>2</sup>

FRANK E. ADAIR, M.D.

Roentgenologist

RALPH E. HERENDEEN, M.D.

Assistant Roentgenologist

James J. Duffy, M.D.

Attending Physician
LLOYD F. CRAVER, M.D.

Associate Neurologist
GEORGE HALL HYSLOP, M.D.

Associate Attending Surgeons

Archie L. Dean, Jr., M.D.<sup>1</sup> George E. Binkley, M.D. Byron Stookey, M.D.<sup>3</sup>

Hayes E. Martin, M.D. Bradley L. Coley, M.D. Frank R. Smith, M.D.

Assistant Surgeons

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HOWARD C. TAYLOR, JR., M.D. WILLIAM L. WATSON, M.D. GEORGE T. PACK, M.D.

Russell S. Ferguson, M.D.

Clinical Assistants

NORMAN L. HIGINBOTHAM, M.D.

JOHN KELLY, M.D.

Anaesthetists

HARRY LANDESMAN, M.D.

ALFRED E. PHELPS, M.D.

<sup>1</sup> Urology. <sup>2</sup> Gynecology. <sup>3</sup> Neurology.

## Clinical Fellows

George S. Sharp, M.D.

William J. Hoffman, M.D.

ROBERT F. McNattin, M.D.

John Wirth, M.D.

Murray M. Copeland, M.D.

Alfred F. Hocker, M.D.

William S. MacComb, M.D.

#### RESEARCH STAFF

## James Ewing, M.D., Director

James Ewing, M.D	hologist
Fred W. Stewart, M.D Associate Pat	hologist
STANLEY R. BENEDICT, Ph.D Director, Department of Ch	
Helen Q. Woodward, Ph.D	Chemist
Kanematsu Sugiura, Sc.D	Chemist
Helen R. Downes, Ph.D	Chemist
GIOACCHINO FAILLA, E.E.D.Sc	Physicist
Edith M. Quimby, M.A Associate F	
Elise S. L'Esperance, M.D Se	erologist
John C. Torrey, M.D	riologist
Halsey J. Bagg, Ph.D	Biologist
Clarence R. Halter, Ph.D Assistant B	Biologist
Paul S. Henshaw, Ph.D Biop	hysicist
CHRISTINE T. HENSHAW, B.Sc Assistant Biop	physicist
WILLIAM S. DUNN	ographer

## GENERAL STATEMENT

#### HISTORY

Cornell University Medical College was established by the Board of Trustees of Cornell University on April 14, 1898, when they elected Dr. William M. Polk Director of the College and Dean of the Medical Faculty, and appointed six professors. The Medical College was made possible by the munificence of Colonel Oliver H. Payne, who provided the funds for the erection of the main building of the college, and pledged it his support. For several years he provided funds for the annual support of the college, and later made a generous provision for its permanent endowment by a gift of over four million dollars to the university.

In October, 1898, instruction began in temporary quarters. As the medical college admitted a number of students with advanced standing, Cornell University granted the degree of Doctor of Medicine for the

first time in 1899.

In order to link up as far as could be done the medical college in New York City with the university of which it is a part, instruction in the medical sciences was begun at Ithaca the same year that the Cornell University Medical College came into being in New York City. The first two years of medical studies could be pursued either at Ithaca or in New York, while all students joined in New York City for the last two years, consisting mainly of clinical study, and the application of the medical sciences in the practice of medicine in its many divisions. The plan providing instruction at Ithaca was changed in 1908, as it was felt that the medical students should come earlier under the influence of the teaching centered about the various New York hospitals, and since that date only the first year of medical instruction has been offered on the campus of Cornell University at Ithaca.

The Cornell University Medical College from its foundation has undertaken to carry out two allied activities, the development of physicians of the best type and the extension of medical knowledge by means of research. The medical faculty has held from the beginning of its existence the attitude that these two functions are necessary as constituting a true university school. It is committed not only to conducting teaching of high order, but also to studying disease and the sciences underlying medicine in order to add to medical knowledge, to search for new means of combatting disease, and to publish the results of research so that they may be available for the

benefit of all mankind.

# THE NEW YORK HOSPITAL-CORNELL MEDICAL COLLEGE ASSOCIATION

The future of the Cornell University Medical College is now bound up with that of the New York Hospital, and after September, 1932, the

two institutions will occupy the same plant.

The New York Hospital was founded by Royal Charter on June 13, 1771, in the reign of King George III, and has stood throughout the life of the nation as one of the foremost hospitals in the United States, as an institution rendering service to the sick and injured, and as a center of medical education. For a number of years the hospital and the medical college have been partially affiliated. In June, 1927, an agreement was entered into between Cornell University and the New York Hospital by which the New York Hospital-Cornell Medical College Association was formed for the purpose of bringing together their facilities and cooperating in the care of patients, in medical education, and in medical research. In order to harmonize the interests of the hospital and of the medical college, the Joint Administrative Board was formed, consisting of three representatives of each institution and a seventh member elected by those appointed by the hospital and by the university.

Additional endowment has been secured by each institution. A group of buildings has been erected along the East River between 68th and 71st Streets, adjoining the Rockefeller Institute for Medical Research. The new plant affords separate buildings for each of the various laboratory departments, and includes approximately 1000 hospital beds. Provision has been made for medicine, surgery, obstetrics and gynecol-

ogy, pediatrics, and psychiatry in five distinct clinical units.

The faculty of the medical college and the professional staff of the hospital have been reorganized so as to form one body established on a

university basis.

The new plant now completed affords very favorable conditions for the conduct of medical education, for the pursuit of medical research, and for the care of patients in all phases of medical practice.

#### **FACILITIES FOR INSTRUCTION**

From the point of view of medical instruction, the facilities provided by the new plant of the New York Hospital-Cornell Medical College Association are in many respects unexcelled. The plant consists of eleven buildings, joined either directly or by underground passages. All of these buildings have been designed as parts of a great teaching institution, and in planning them much thought was given to the problems of teaching. Nearly five years were required to plan and construct the group of buildings to be devoted to the care of patients, to medical teaching and to scientific research in the various fields of medicine.

The instruction in the medical sciences is conducted in a group of laboratories extending along York Avenue from 68th to 70th Street,

centering about a court at the end of 69th Street, where the entrance of the medical college is located. Four buildings five stories high with two basements face York Avenue. The two outer buildings are connected with the central group by buildings two stories in height. At the northern end of the group is the laboratory of the Department of Anatomy with the Department of Public Health and Hygiene in the connecting wing. The building at the southern end contains the laboratories of Biochemistry and Pharmacology. The central group of buildings is formed by the laboratories of the Department of Physiology on the south, and those of the Department of Bacteriology and Immunology on the north, joined by a seven-story building which contains the offices of the medical college, the library, and the Department of Pathology. This central building of the college is joined on all floors with the central hospital building.

Student laboratories and lecture rooms are provided on the second and third floors of these buildings and extensive facilities for research by staff and students are available on other floors. A series of locker and lounge rooms is provided for the use of students. A cafeteria under the direction of the chief dietitian has been established in the basement

of the physiology building.

Clinical instruction is given in the five separate clinics forming the New York Hospital. The medical and surgical clinics occupy the central hospital building, while the woman's clinic, the pediatric clinic, and the psychiatric clinic extend from north to south, overlooking the East River. Each clinic contains, besides provision for bed-patients, its own out-patient department, lecture rooms and laboratories for routine study and for clinical research. Special provision has also been made for the laboratory work of students. The medical clinic occupies the second to fourth floors of the central hospital building, with six pavilions for bed-patients, three floors for its out-patient department, and extensive laboratories for chemical, physiological, and biological research.

The surgical clinic occupies the pavilions from the fifth to the ninth floor, with out-patient and other facilities for the various surgical specialties. The operating rooms are on the tenth and eleventh floors. Above are six floors containing one hundred rooms for private patients, while the living quarters for the resident staff are on the six floors at the top of the building. Although the entire hospital has a capacity of approximately 1,000 beds, only about 600 beds will be put into use

during 1932-1933.

The head of each clinic, responsible for the care of patients and the conduct of the professional services of the hospital, is also professor in charge of the corresponding department of the medical college. Each clinical department is staffed in part by teachers and clinicians, including the professor in charge, who devote their entire time to the service of the college and hospital, while other members of these departments devote part of their time to private practice.

Although the clinical teaching is conducted largely in the New York Hospital, advantage is also taken of special facilities afforded by other hospitals. In some of these hospitals the staff appointments are controlled by the medical college, while in others the teaching privileges have been granted to the members of the staffs who are also members of the medical college faculty.

Bellevue Hospital. Bellevue is the central hospital of the New York City Department of Hospitals. It contains 1,200 beds and is devoted to the treatment of acute diseases. It is organized in four divisions, one of which has been placed at the disposal of the faculty of Cornell University Medical College for medical instruction. The services conducted by the college include a medical service and a surgical service, each of 90 beds, a urological service and a neurological service of approximately 60 beds each. The staffs of these services are nominated by the college from among the members of its faculty and teaching staff, and the medical college is responsible for the professional conduct of these services.

Memorial Hospital. Through the generosity of the late Dr. James Douglas, who provided the hospital with an endowment for the study and treatment of cancer and allied diseases, the Memorial Hospital became affiliated in 1914 with Cornell University Medical College. According to an agreement between the memorial hospital and the college, the professional staff is named by the Council of the Medical College, subject to the approval of the board of managers of the hospital. The facilities of the hospital, which are of exceptional value in the field of cancer, are available for study in this field by the members of the hospital staff, and unusual opportunities are afforded for instruction in the pathology, diagnosis, and treatment of neoplastic diseases.

THE JOHN E. BERWIND FREE MATERNITY CLINIC. An affiliation having been consummated between the John E. Berwind Free Maternity Clinic and Cornell University Medical College, the medical direction of the clinic is placed under the control of the college. The medical staff, including the resident and house staffs, are appointed by the clinic only on nomination by the medical college.

Cornell students are assigned to the clinic for practical instruction under the direction of the Professor of Obstetrics and Gynecology.

When Cornell students have been provided for, vacancies in the student staff will be filled by appointment. Application for such assignments should be made to the Superintendent of the Clinic, 125 East 103rd Street, New York, N. Y.

THE NEW YORK NURSERY AND CHILD'S HOSPITAL. By courtesy of the trustees of this hospital, its facilities have been placed at the disposal of the medical college for instruction in pediatrics. The hospital has provided laboratory and teaching facilities which have been of great value in the study of the disorders and diseases of childhood, and which have served for purposes of instruction in this field.

Woman's Hospital. By a provision in the act of incorporation of the Woman's Hospital it is open for the purpose of medical education.

As the chief surgeon is a professor in the medical college, this hospital

affords excellent opportunities for instruction in gynecology.

MANHATTAN STATE HOSPITAL, WARD'S ISLAND. This hospital for the care and treatment of mental diseases accommodates over 5,000 patients. Through the courtesy of the superintendent, the Department of Psychiatry is enabled to utilize this clinical material for bedside study of patients and for the instruction of students.

St. Luke's Hospital. Teaching privileges have been granted for surgical instruction which is conducted under the direction of a professor in Cornell University Medical College who is an attending surgeon of St. Luke's Hospital. The surgical service of this splendid institution affords valuable opportunities for the study of surgery.

OTHER HOSPITALS. Instruction is also conducted at the Willard Parker Hospital, the Hospital for the Ruptured and Crippled, and St. Mary's Hospital, in which staff positions are held by members of the faculty and teaching staff who have the privilege of conducting medical instruction.

## THE RUSSELL SAGE INSTITUTE OF PATHOLOGY

This institute has been associated with Cornell University Medical College since 1913, through its affiliation with the Second Medical (Cornell) Division of Bellevue Hospital. It has supported research work in metabolism conducted by the members of the Department of Medicine. Dr. Eugene F. DuBois, Professor of Medicine, is the medical director of the institute. The respiratory calorimeter which has been operated for a number of years by Dr. DuBois at Bellevue Hospital has been transferred by the directors of the institute to the New York Hospital, and sufficient funds for carrying on the important metabolic studies of Dr. DuBois and his staff have been provided by the institute.

#### THE LIBRARY

The reading room of the library is situated on the second floor of the central group of laboratory buildings, directly over the entrance of the medical college. The current journals are kept in racks about three sides of the room. The book stacks are directly behind and open to the reading room, and extend down to the sub-basement with six floors of stacks and accommodations for about 100,000 volumes. There is also a library seminar room, and several rooms for the library staff.

The library contains at the present time about 20,000 volumes, largely made up of complete sets of important journals in the fields of clinical medicine and the medical sciences, in English, German, and French. There are also well-selected collections of monographs, text-

books, and reprints.

The library is under the direction of a committee of the faculty, and in charge of a trained librarian who gives instruction to students on the proper methods of using the library and of searching medical literature.

A special fund, maintained in memory of Alfred Moritz Michaelis, M.D., Cornell 1925, who died the year after his graduation, is used for the purchase of biographies, books of cultural value in medicine and of historic value.

In addition to the college library, students may obtain certain privileges at the library of the New York Academy of Medicine, Fifth Avenue and 103rd Street, the second largest medical library in the United States.

# REQUIREMENTS FOR ADMISSION AND GRADUATION

The faculty of Cornell University Medical College is of the opinion that candidates for admission to the medical profession should possess the liberal culture and general education implied by a college degree in arts or science. Only the following classes of candidates for the degree of Doctor of Medicine are admitted to Cornell University Medical College.

I. Graduates of approved colleges or scientific schools; or

II. Seniors in good standing in approved colleges or scientific schools upon condition that their faculty will permit them to substitute the first year in Cornell University Medical College for the fourth year of their college course, and will confer upon them the bachelor's degree upon the satisfactory completion of the year's work. No student admitted under this clause is permitted to enter the second year of the curriculum without having obtained a bachelor's degree.

III. Persons who give evidence by examinations that they have acquired an equivalent education to that signified by a bachelor's degree, and training sufficient to enable them to profit by the instruction offered in the medical college. This rule is intended to apply to students

of foreign universities.

ALL CANDIDATES FOR ADMISSION shall have satisfactorily completed, in an approved college, at least the following minimum requirements, in which a semester hour is the credit value of at least sixteen weeks' work, consisting of one hour of lecture or recitation or two or more hours of laboratory work, per week.

1. Physics, 8 semester hours, including laboratory work.

2. Chemistry, 12 semester hours (8 hours of inorganic, including qualitative analysis and 4 hours of organic chemistry). Quantitative Analysis is recommended but not required. It is advised that students acquire all the knowledge of chemistry possible in their preparatory years.

- 3. Biology (Zoology), 6 semester hours, including laboratory work. In addition to this minimum requirement, a course in general histology with embryology including the early development of the frog and chick is very desirable. Courses in the comparative anatomy of vertebrates and elementary histological technique are also recommended.
  - 4. English, 6 semester hours.

5. Modern language, 6 semester hours—French or German.

6. Two additional semester hours of college credit will be required in each of the three subjects, biology, English, and modern language,

in which no introductory high school course was offered for admission

to college.

The number of students admitted to the first year class is limited to seventy-five. In order that the advantages of the medical college may be available to students from all parts of the United States, not more than five students from any one college will be admitted to the first year class, with the exception of Cornell University.

#### APPLICATIONS FOR ADMISSION

All applications and inquiries regarding admission are to be addressed to the Secretary of the Faculty, from whom application forms may be obtained. Applications for admission should be submitted not later than January of the calendar year in which admission is desired, and should be followed promptly by an official transcript of the college record. A recent unmounted photograph of the applicant must be attached to each application.

All applicants, if requested, are required to present themselves in person by appointment at the office of the Secretary of the Faculty at some

time after their credentials have been submitted.

Applications are passed upon by the Committee on Admissions after credentials have been filed. Candidates are promptly notified of the decision of the Committee. Accepted applicants are required to make a deposit of one hundred dollars within a specified time, usually about two weeks after notification of admission. This deposit is not returnable, but is credited toward the first tuition payment. If he fails to make this deposit within the time specified the applicant forfeits his place in the medical college.

A medical student's qualifying certificate, issued by the New York State Education Department signifying that its requirements have been met, must be secured before registration by each student accepted for admission. An application blank for the certificate with full instruc-

tions will be sent by the college to each student admitted.

## ADMISSION TO ADVANCED STANDING

When vacancies occur, students may be admitted to advanced stand-

ing under the following conditions:

Applications for advanced standing should be filed according to the procedure described for admission to the first year class, accepted applicants being required to make the same deposit of one hundred dollars. Applicants must not only furnish acceptable evidence of having satisfactorily completed in an approved medical school all the work required of students of the class they desire to enter, but also of having completed the conditions of admission to the first year class at Cornell University Medical College. They must also present a certificate of honorable dismissal from the medical school or schools they have attended.

Examinations may be required in any of the medical courses taken at another school.

### **EXAMINATIONS AND PROMOTIONS**

I. Advancement. Students are advanced in their course upon recommendation of the Committee on Promotion and Graduation, which is composed of the heads of departments or their representatives responsible for the more important courses of each year. The quality of the work of each student is considered, usually at the end of each term. Students are notified whenever the committee considers that their work is of an unsatisfactory quality. No grades are ever announced to students.

II. Examinations. Examinations for advancement, graduation, and admission to advanced standing are held at the close of the academic year, except that in each course extending through a part of the year only, examinations may be held at the close of the course in the hours allotted thereto.

Students who fail in more than 40 per cent of the required hours of the first year, or in more than 30 per cent of the required hours of the subsequent years, must withdraw from the medical college. Students failing in less than the number of hours prescribed above may be reexamined, but only after pursuing additional work, under the direction of the head of the department in which a failure has occurred, throughout at least one term, or during a summer vacation.

Students who fail on reexamination are required to withdraw from the medical college, unless under special circumstances they are permitted by the Committee on Promotion and Graduation to repeat courses in which failures have occurred. Students repeating any work may be forbidden by the committee to take some of the courses they would normally carry.

Any student who by quality of work or conduct indicates an unfitness to enter the profession of medicine may, at the discretion of the faculty, be required at any time to withdraw from the medical college.

## REQUIREMENTS FOR GRADUATION

The candidates for the degree of Doctor of Medicine must have attained the age of twenty-one years, and be of good moral character. They must have spent at least four years of study as matriculated medical students, the last of which must have been in Cornell University Medical College. They must have satisfactorily completed all the required work of the medical curriculum, must have passed all prescribed examinations, and be free from indebtedness to the college. At the end of the fourth year every student who has fulfilled these requirements will be recommended to the President and Trustees of Cornell University for the degree of Doctor of Medicine.

## **EXAMINATIONS FOR MEDICAL LICENSURE**

Graduates of Cornell University are admitted unconditionally to the examinations for license to practice medicine in all states of the United States. In New York State all requirements for admission to examinations for license should be filed with the State Education Department at least fifteen days before the examinations are held. In 1933 these examinations will be held in February, June, and September (dates to be

announced) at New York, Albany, Syracuse and Buffalo.

Students and graduates of Cornell University Medical College are admitted to the examinations of the National Board of Medical Examiners, whose certificate is accepted by the Surgeons-General of the Army and Public Health Service of the United States and by the boards of medical licensure of forty-one states, Porto Rico, Hawaii and the Canal Zone. This certificate is also recognized by the respective authorities of England, Scotland, Ireland and Spain. The dates and places of the examination will be announced as promulgated by the Board.

Graduates of Cornell University Medical College are admitted to the final examinations for diploma of Licentiate of the Royal College of Physicians of London and Membership of the Royal College of Surgeons of England, upon the presentation of certificates showing that they have complied with conditions applicable to foreign universities

and colleges which are recognized by the examining board.

## EDUCATIONAL POLICIES OF THE MEDICAL COLLEGE

The medical college is divided into thirteen major departments, six of which are primarily concerned with the sciences underlying clinical medicine. They are anatomy, biochemistry, physiology, bacteriology and immunology, pathology, and pharmacology. Seven departments have as their major functions the study, treatment, and prevention of human disease, and maternity care. These are medicine, surgery, pediatrics, psychiatry, obstetrics and gynecology, public health and preventive medicine, and applied pathology and bacteriology.

The heads of these thirteen major departments, together with the President of the University, the Director, and the Associate Dean, constitute the Executive Faculty, which is responsible for the educa-

tional policies of the college.

Courses required to be completed by each student before the degree of Doctor of Medicine is conferred by Cornell University are offered by each department. These courses are arranged, in their sequence and duration, to develop logically the knowledge and training of students and to build up gradually the requirements needed for graduation as Doctor of Medicine. The various departments also offer courses and opportunities for special study open to regular medical students, to candidates for advanced degrees in the Graduate School of Cornell University, and to qualified advanced students of medicine not candidates for degrees.

Medical knowledge is so extensive that only a relatively small part of that needed for a successful career in medicine can be acquired during a reasonable length of time devoted to medical study after completion of the required collegiate education and before beginning independent professional work as a doctor of medicine. Four periods of thirty-two weeks each is the time necessary to complete the requirements for the degree of Doctor of Medicine. The required period of study usually extends over four academic years, of which approximately twenty weeks of each year are allowed for vacation. It is planned that studies may be pursued during vacation periods. This will provide an opportunity to shorten the time necessary to complete all required courses and thereby to devote more time to elective work. Opportunities for studying in other medical schools may also be arranged during the course if appropriate conditions can be found.

As medical science and medical practice may be pursued in a variety of ways, it is the policy of the college to encourage the student to vary his course of study according to his special interests and particular talents as far as is consistent with meeting the requirements for the

degree of Doctor of Medicine.

A thesis is not required for the degree of Doctor of Medicine, but students are encouraged to engage in individual work as far as their time permits, with the hope that they may accomplish results worthy of publication. It is therefore desirable for some students to devote all their free time to a single subject in which they have a special interest.

The development of technical and scientific proficiency in the various special fields of clinical medicine is not encouraged during the regular medical course, but must await adequate training after grad-

uation.

#### PLAN OF INSTRUCTION

The first year of study is devoted to anatomy, biochemistry, and physiology. It is divided into trimesters, while in subsequent years the regular period of study consists of four periods or quarters of eight weeks each.

During the second year, the required courses in physiology, pathology, bacteriology and immunology, and in pharmacology occupy the first three quarters. The last quarter is devoted to technical training preparatory to the study of patients, courses being given by the departments of applied pathology and bacteriology, medicine, surgery, and anatomy.

During the third and fourth years, students are divided into small groups for practical work in the various clinics and for elective work. The third and fourth year classes meet together at noon each day for clinical lectures and demonstrations and for clinical-pathological conferences.

Time for elective work is provided especially in the second and fourth years, after students have had opportunities to acquire some knowledge of the medical sciences and of clinical medicine. Students are advised to consult informally members of the faculty in regard to the use of their time for elective work, as it is deemed best not to establish a formal advisory system.

The details of the courses offered by each department are to be

found in the departmental announcements.

The faculty expressly reserves the right to make alterations in the curriculum whenever advisable and without previous notice to students.

## GENERAL INFORMATION

#### FEES AND EXPENSES

All fees for instruction and other charges are paid to the Treasurer's Office of the Medical College.

Tuition Fee	er vear.
This fee is payable at the beginning of the academic	, , , ,
year, or in two equal parts semi-annually in advance.	
No refund or rebate will be made in any case.	
An advance of \$100 on account of tuition is re-	
quired of all applicants accepted for admission and is	
not returnable. At matriculation it is credited toward	
tuition.	
Matriculation Fee	. \$10
This fee is payable only once, on admission.	
Breakage Deposit	. \$10
This deposit is to be made at the beginning of each	
academic year, and will be returned, less the amount	
charged for breakage, at the end of the year.	
Obstetrics Fee	. \$10
This is a special fee, payable at the beginning of the	
third year.	•
FINAL EXAMINATION FEE	. \$25
This fee is payable on registration for graduation.	
STUDENTS OF THE GRADUATE SCHOOL:	
For fees, see page 88.	
SPECIAL STUDENTS:	6-0
Matriculation Fees	. \$10
Tuition: See sections describing the courses offered.	. \$5
Torrion. See sections describing the courses onered.	

All students entering the medical college are required to provide themselves with satisfactory microscopes. Haemocytometers and haemoglobinometers will be required at the beginning of the third quarter of the second year. The necessary books are conservatively estimated to cost about \$50 per year.

All students should assure themselves that they can carry the financial burdens involved with reasonable certainty up to the time of graduation. Experience has proved that the student will need his entire time and undivided interest for study. It is unwise to depend upon earning any part of one's expenses during the college year. See requirements for graduation, page 48.

#### STUDENT HEALTH SERVICE

All members of the first year class and all students transferred from other colleges are required to have a thorough physical examination by a member of the staff assigned by the college physician. All students are re-examined yearly. Health records are kept, and students are advised concerning their physical condition and general health. All cases of illness must be reported immediately to the college physician. Students may have in attendance physicians of their own choice, but a reasonable amount of cooperation between such physicians and the college health service is expected. A woman physician on the staff will be available for women students. The college physician will have regular office hours daily. Students pay no fees for the services of the authorized staff.

## SCHOLARSHIP AND LOAN FUNDS

- 1. The John Metcalfe Polk Scholarship. A gift under the will of William Mecklenberg Polk, the first Dean of the medical college, is awarded annually by the faculty. The scholarship amounts to \$250 a year.
- 2. Cornell University Medical College Scholarships. By vote of the Council, scholarships amounting to \$500 a year are awarded from time to time.
- 3. The 1923 Loan Fund. This fund amounts to \$350 a year and is available as a loan to students needing financial assistance, preferably to a third year student.
- 4. ALUMNI ASSOCIATION LOAN FUND. The Alumni Association of the medical college has set aside sufficient funds to aid several students in meeting their tuition expenses. This fund will be administered by the Medical College Council in cooperation with a committee of the Alumni Association. Students receiving aid from this fund will, as a general rule, be selected from the fourth year class.
- 5. Get-Together Loan Fund. This fund has been collected by the students of the medical college, and is available for a student of the third or fourth year class who is in need of immediate financial assistance.
- 6. THE THORNE SHAW SCHOLARSHIP FUND. This fund provides three scholarships designated as:

First: A scholarship of \$500 available to students after at least two years of study in the medical college.

Second: Two scholarships of \$250 each available to students after

at least one year of study in the medical college.

These scholarships are awarded by the faculty upon nomination by the Committee on Scholarships and Prizes. They are awarded annually in June and are for one year only. Students receiving the scholarships are notified of the award at the end of the session, and public announcement is made at the opening of the subsequent session in September.

7. Mary F. Hall Scholarship. The income, amounting to about \$150 annually, from a fund established by bequest of Miss Mary F. Hall, is available to any woman student in Cornell University Medical College who needs its aid and who is a bona fide resident of the State of New York and was such prior to admission to the college.

Students seeking scholarships or loans are required to make applications for the same on forms supplied by the Dean's office.

#### **PRIZES**

- I. For General Efficiency. In commemoration of John Metcalfe Polk, an instructor in this college, who was graduated from Cornell University Medical College on June 7, 1899, and died on March 29, 1904, an annual prize of \$500 will be presented at each commencement to the three students having the highest standing for the four years' work. Only those who have taken the full course of study at Cornell University Medical College are eligible. The first prize is \$300, the second \$125, and the third \$75.
- II. For Efficiency in Gynecology. In memory of William Mecklenburg Polk, M.D., LL.D., Dean and Professor of gynecology in Cornell University Medical College from its establishment in 1898 until his death, June 23, 1918, an annual prize, established by Mrs. Polk, of \$250, to the three members of the senior class in order of merit, for obtaining special distinction in gynecology. The first prize is \$125, the second \$75, and the third \$50.
- III. For Efficiency in Otology. Two prizes, the first of \$50, the second of \$25, are offered by Professor Frederick Whiting to the two students of the graduating class who make the best records in the practical and theoretical work in otology.
- IV. FOR EFFICIENCY IN OBSTETRICS. Two prizes, the first of \$75, the second of \$25, have been endowed by an anonymous donor in recognition of the work of Dr. Gustav Seeligman in obstetrics, to be given to the two students in the graduating class who have made the best records in the practical and theoretical work in obstetrics.
- V. For Efficiency in General Medicine. The income of \$1,000 is offered as a prize for general efficiency in the Department of Medicine, to be known as the Alfred Moritz Michaelis prize in general medicine, in commemoration of Alfred Moritz Michaelis, who was graduated from Cornell University Medical College on June 11, 1925, and who died during his interneship at Mt. Sinai Hospital, April 24, 1926. Presented at each Commencement to a member of the graduating class who has pursued the full course at Cornell University Medical College.
- VI. For Efficiency in Research. In memory of William Mecklenburg Polk, M.D., LL.D., first Dean of the medical college, two prizes are offered to regularly matriculated students of the Cornell University Medical College, the first of \$200, and the second \$50.

The awards are made annually at the opening exercises of the medical college in September for the best written reports of research work done by students, or for valuable reviews and logical presentations on medical subjects not to be found fully considered in a single text or reference book. If the papers submitted are not considered worthy of special commendation the prizes will be withheld.

Papers are submitted in quadruplicate in a sealed envelope marked, "Dean William Mecklenburg Polk Memorial Prize Committee," and must be in the Dean's Office not later than the first day of September.

The committee of awards for this prize consists of two members of the faculty from laboratory departments, and two from clinical departments.

VII. For Efficiency in Neurology. A prize of \$50 is offered by Dr. Foster Kennedy, to a student of the graduating class who makes the best record in the practical and theoretical work in neurology.

## **ANATOMY**

CHARLES R. STOCKARD, Professor of Anatomy.
CHARLES V. MORRILL, Associate Professor of Anatomy.
GEORGE PAPANICOLAOU, Assistant Professor of Anatomy.
JOSE F. NONIDEZ, Assistant Professor of Anatomy.
PHILIP B. ARMSTRONG, Assistant Professor of Anatomy.
LOUIS HAUSMAN, Associate in Neuro-Anatomy.
EMILIA M. VICARI, Research Associate in Anatomy.
JOSEPH L. SCHWIND, Instructor in Anatomy.
WILLIAM L. SNEED, Instructor in Applied Anatomy.
WILLIAM T. JAMES, Assistant in Anatomy.
WALTER MODELL, Assistant in Anatomy.

#### I. MORPHOLOGY

STRUCTURE OF MAN. This course considers the structure of the various organs and systems of the human body in the light of their variations and evolutions. The relationship of the parts, organs and systems is also explained by numerous facts gathered from experimental morphological studies on lower vertebrates.

The chief aim is to emphasize the idea that animal structures are constantly changing and varying, yet are so definite as to lend them-

selves to logical analysis.

Laboratory, 40 hours (elective), and demonstration conference, 22 hours (optional). Professor STOCKARD.

## II. Embryology and Histology

The work in embryology presupposes a general knowledge of the subject, particularly that of the early development of the chick. It embraces a thorough study of the development of the mammalian embryo in the light of our knowledge of the evolution of the human body. Malformations resulting from developmental disturbances are broadly considered. The course is closely correlated with that of gross anatomy.

The work in histology includes the histogenesis and microscopic structure of all organs of the human body with the exception of the central nervous system (See Neuro-anatomy). Emphasis is laid on the

relation of structure to function.

The tissues are studied principally by means of stained sections and practice is given in rapid identification of their diagnostic features. Demonstrations of living material are made and opportunities are offered for acquiring the essentials of histological technique.

A part of the course is devoted to seminars on current literature.

Laboratory course and lectures, 236 hours, October to March. Required of all first year students. Assistant Professor Nonidez, Dr. Schwind and assistants.

## III. NEURO-ANATOMY

A laboratory course on the gross and microscopic anatomy of the human nervous system. Special emphasis is laid on the more important pathways and their functions.

Laboratory and demonstrations, 85 hours. Required of all first year students during the third term. Assistant Professor Nonidez and

Dr. HAUSMAN.

## IV. GROSS ANATOMY OF THE HUMAN BODY

This is taught by means of laboratory exercises and dissections. The required work includes: (a) Dissection of the part. (b) Demonstrations, study and discussion upon dissected and prepared specimens, and from standard text-books.

Total laboratory hours, 421 (minimum). First and second terms of

the first year.

Course 1. A Demonstration Course. Demonstrations upon the cadaver, models and dissected preparations amplifying the courses in dissection during the first and second terms of the first year. Optional for the first year students.

Course 2. Study Room Course in Live Anatomy. Since the ultimate aim of dissection is to acquaint the student not merely with the arrangement of structures in the cadaver, but with the facts of the living body, this course follows as a natural sequence to the work of the dissecting room. Optional to first year students.

Course 3. Dissection Review. The work gives an opportunity for advanced dissection. Optional to students of the second, third, or

fourth years. Afternoons.

Course 4. Topographical Anatomy. A study of the relations and topography of the parts of the body by means of frozen sections. Cleared preparations and living models are also used. Members of the class must submit a number of drawings made from the sections.

Laboratory, 21 hours. Required during the fourth quarter of the second year. Professors STOCKARD, MORRILL, ARMSTRONG, and assistants.

#### V. FLECTIVE COURSES

Course 1. Preparatory to the Specialties. These courses offer a thorough review of the embryology, histology and gross anatomy of the following organs and systems: (a) the eye; (b) the ear; (c) the face and neck, including especially the nose and accessory sinuses, the mouth and salivary glands, pharynx and larynx, thyroid, and parathyroid glands; (d) the genito-urinary system, male and female; (e) the brain and spinal cord; (f) the thorax and abdomen; (g) the extremities, especially the joints and their mechanics. Laboratory, 40 hours. Professor Stockard.

Course 2. General Histology. This course will comprise a study of the various types of tissues which form the several organs of the vertebrate body. The structures will be studied not only from the mere morphological standpoint, but the various biological problems involved will be taken into consideration. The close relationship between structure and function will be elucidated.

Twenty lectures. Assistant Professor Nonidez and Dr. Schwind.

Course 3. The Anatomy of the Infant. A course of lectures amplified by demonstrations and the study of preparations.

Twenty demonstrations arranged for in advance. Professor Stockard.

Course 4. Development Arrests and Structural Deficiencies. A discussion of the imperfections in development which may occur during various periods from the maturation of the germ cells, fertilization of the egg on through embryonic and fetal development.

Fifteen lectures. Professor STOCKARD.

Course 5. Experimental Embryology. These lectures begin with the history of the subject and the various aspects of the problems concerned. The experimental analysis of embryological processes is then considered from several points of view.

Twenty lectures with conferences considering the recent literature

of the subject. Professor STOCKARD.

Course 6. REGIONAL ANATOMY. This course will comprise a thorough review by means of dissections, demonstrations and reading of the gross anatomy, histology and development of selected regions of the body and of organs and organ systems.

Laboratory and demonstration, 3 half days a week for one month.

Associate Professor Morrill and assistants.

Course 7. APPLIED ANATOMY. Special emphasis on fractures, dislocations, and injuries to the spine and extremities. The course will include eight conferences. Not given for less than six students. Dr. SNEED.

Course 8. Anatomical Research. To students desiring to pursue research in anatomical subjects the equipment of the entire department is available. Members of the staff will assign subjects and direct the progress of advanced work of this type. The work may be elected by students who enter with advanced credits, or by any student who has completed the preliminary courses in descriptive anatomy, histology and embryology. The course is also open to graduates in medicine or biology.

OTHER ELECTIVES. The Department of Anatomy will arrange a schedule of work to fit individual cases for a limited number of fourth-year students desiring to devote the major part or all of their elective time. Such work will be designed, in cases where sufficient time is available, to equip the student to become a laboratory as-

sistant.

## COURSES OPEN TO STUDENTS OF THE GRADUATE SCHOOL

- 1. Embryology. September to March. Fee \$50. Details, pages 55, 57.
- 2. Histological Technic.\* Laboratory at least three hours daily and conferences with instructors. Fee \$30.
- 3 and 4. General Histology and Microscopical Anatomy. September to March. Fee \$50. Details on page 55.
- 5. Dissection.\* See Courses I-IV, page 56. Fee \$30 per term (ten weeks); or for the entire dissection, \$50.
  - 6. Neuro-Anatomy. March to May. Fee \$30. Details on page 56.
- 7. Anatomical Research.\* Subject to special arrangement with the head of the department.

## **BIOCHEMISTRY**

STANLEY R. BENEDICT, Professor of Biochemistry. WILLIAM H. SUMMERSON, Instructor in Biochemistry. Emil Osterberg, Instructor in Biochemistry. JEANETTE ALLEN BEHRE, Instructor in Biochemistry. ELEANOR B. NEWTON, Instructor in Biochemistry. Gertrude Gottschall, Assistant in Biochemistry. GLADYS J. FASHENA, Student Assistant in Biochemistry. NATHAN F. BLAU, Research Associate in Biochemistry.

The instruction in biochemistry is concentrated in the first year, and is arranged upon the assumption that the student is already thoroughly grounded in the principles of chemistry and physics. The object is to impart that fundamental knowledge of organic and physiological chemistry which is necessary to the comprehension of the bearings of chemistry upon physiology, pharmacology and medicine.

Lectures. There are three conferences a week on physical chemistry during the first term. The elements of the subject are presented with special emphasis upon the properties and reactions of colloids, and the theory of indicators. Roentgen and radium rays are also discussed.

During the second term two lectures a week are devoted to organic and physiological chemistry. The lectures discuss groups of compounds of special biological importance, emphasizing the carbohydrates, purines, amino acids and fats.

In the third term two lectures weekly are devoted to physiological.

LABORATORY WORK. During the first term there is one session weekly of two hours in physical chemistry. The experiments are designed to familiarize the student with the fundamental properties of electrolytes and colloids, and to study the phenomena of osmosis and dialysis. Methods of hydrogen ion determination are also studied.

In the second term there are five hours weekly in organic and physiological chemistry. This work is directed mainly to the prepara-

<sup>\*</sup> Courses may be begun at any time.

tion and examination of organic compounds of biological importance, and furnishes practice on those points in which laboratory manipula-

tions are desirable.

During the third term there are two four-hour laboratory sessions weekly in physiological chemistry. This course includes the study of the reactions of the carbohydrates, fats and proteins; of the composition of the salivary, gastric, pancreatic and intestinal secretions and the bile, and their actions in digestion; of the faeces, urine, blood and milk; and of the examination of pathological fluids, concretions, etc. The arrangement of this course is in coaptation with those in physiology and in clinical pathology.

In the laboratory courses each student is supplied with all apparatus

and chemicals required.

RESEARCH. The laboratory is open to students of any year who desire to prosecute advanced work or research, subject to the regulations of the office.

## **ELECTIVE COURSES**

CHEMICAL PATHOLOGY. A practical course in the chemical analysis of the blood. The laboratory work is supplemented by informal lectures and discussions. Hours to be arranged.

## COURSES OPEN TO STUDENTS OF THE GRADUATE SCHOOL

- 1. Physical Chemistry as Applied to Medicine.\* Eleven weeks, two lectures, one laboratory period. Fee \$25.
- 2. Physiological Chemistry.\* Two terms, of ten and eleven weeks each. Two lectures and two laboratory periods each week. Fee \$25 per term.
- 3. Chemical Pathology.\* A practical course in methods of blood analysis. Two three-hour periods a week for one month. Fee \$25.
- 4. Research Work in Physiological Chemistry, Chemical Pathology, or Toxicology.\* Hours and fee to be arranged with each student.

## PHYSIOLOGY

HERBERT S. GASSER, Professor of Physiology.
DAYTON J. EDWARDS, Associate Professor of Physiology.
McKeen Cattell, Assistant Professor of Physiology.
William H. Chambers, Assistant Professor of Physiology.

First Year. Lectures, laboratory and conferences. Physiology of the muscle and nerve, the central nervous system, the special senses, digestion and internal secretions.

Second Year. Lectures, laboratory and conferences. Physiology of the blood, circulation, respiration, and metabolism.

<sup>\*</sup> These courses may be begun at any time.

#### **ELECTIVE COURSES**

The department will arrange a schedule of work for fourth year students who wish to devote their elective time to physiology.

## COURSES OPEN TO STUDENTS OF THE GRADUATE SCHOOL

- 1. Physiology. Third term. Fee \$50.
- 2. Physiological Research. Subject to special arrangement with the head of the department. May be begun at any time.

## BACTERIOLOGY AND IMMUNOLOGY

JAMES M. NEILL, Professor of Bacteriology and Immunology.

J. LIONEL ALLOWAY, Assistant Professor of Bacteriology and Immunology.

JOHN Y. SUGG, Instructor in Bacteriology and Immunology. ROBERT A. MOSLEY, Assistant in Bacteriology and Immunology.

Lyle A. Weed, National Research Council Fellow.

The course given to second year students consists of lectures, laboratory work, and group conferences. Emphasis is placed upon the aspects of bacteriology and of immunology that are pertinent to an understanding of the etiology and pathogenesis of infectious diseases. The study of infectious material from patients is included in the laboratory part of the course, not only to acquaint the student with the technical procedures, but to illustrate the directness of application of the fundamental principles of the subject to the practical methods used in the examination of clinical material.

#### **ELECTIVE COURSES**

The department will arrange a schedule of work for fourth year students who wish to devote their elective time to bacteriology and immunology.

## COURSE OPEN TO STUDENTS OF THE GRADUATE SCHOOL

Opportunities for advanced study and for research will be offered to students particularly interested in bacteriology and immunology. Hours to be arranged.

## **PATHOLOGY**

## GENERAL PATHOLOGY, PATHOLOGICAL ANATOMY, EXPERIMENTAL PATHOLOGY

EUGENE L. OPIE, Professor of Pathology.

James Ewing, Professor of Oncology.

Lawrence W. Smith, Assistant Professor of Pathology.

Fred W. Stewart, Associate in Pathology.

Jacob Furth, Associate in Pathology.

Jules Freund, Associate in Pathology.

Lewis D. Stevenson, Instructor in Neuropathology.

Charles T. Olcott, Instructor in Pathology.

Henry W. Ferris, Instructor in Pathology.

D. Murray Angevine, Instructor in Pathology.

Henry S. Dunning, Assistant in Pathology.

Henry Brody, Assistant in Pathology.

#### GENERAL PATHOLOGY

FACILITIES. The department of pathology occupies three floors of the central part of the college building, conveniently located above the library and in immediate contact with the hospital, the autopsy room being in the connecting wing between college and hospital. The teaching is largely concentrated on the third floor, where the autopsy room, demonstration room for pathological anatomy, anatomical museum, and class rooms are found. The fourth and fifth floors are chiefly unit laboratories for staff members and graduate students and for technical preparation. In addition, adequate animal quarters and facilities for experimental work are on the fifth, sixth and seventh floors.

The museum contains a carefully selected collection of nearly three thousand specimens, representing most of the common and many of the more unusual pathological lesions. It is especially rich in lesions of bones and in tumors. In addition to this mounted collection, there is available a very considerable amount of constantly changing gross

material for student study.

For undergraduate teaching, there is a collection of approximately 500 sets of demonstration slides, which are loaned to the student during the course. Supplementing this teaching collection, all the autopsy slides of the New York Hospital for the past 25 years or more, carefully cross-indexed, are kept on file. There is also a general collection of 20,000 slides for special study of specific diseases or organs.

Instruction. The course of instruction is given in the second and third quarters of the second year. It consists of gross and microscopic

study of pathological lesions, experiments, lectures and class room demonstrations. This is supplemented by study of gross pathology at the autopsy table. The course begins with the degenerations, inflammation and repair, and proceeds with the various specific infections. The latter part of the course is devoted to special systemic pathology, including neuropathology.

Course I. General Pathology. Laboratory work with lectures and gross and microscopical demonstrations. The work covers inflammation, degeneration, regeneration and infectious diseases.

Required in second quarter of second year, 90 hours.

Course II. Systemic Pathology. Continuation of elementary course, covering oncology and pathology of various organ systems.

Required in third term of second year, 184 hours. Total, 274 hours. Professors Opie, Ewing, Smith, and staff.

### **ELECTIVE COURSES**

Student may undertake the investigation of some problem in pathology or may pursue advanced courses in any of several fields, to be determined by consultation with the head of the department. Research or elective courses will ordinarily require the entire time of the student for a period of one to three months, and may be continued into the summer.

## COURSE OPEN TO STUDENTS OF THE GRADUATE SCHOOL

Opportunity is afforded a limited number of students to engage in original research in selected topics under the direction of a member of the department. The student must contract to devote his entire time to the pursuit of the problem. By special arrangement this work may be pursued at the Memorial Hospital in cancer research.

## **PHARMACOLOGY**

ROBERT ANTHONY HATCHER, Professor of Pharmacology. HARRY GOLD, Assistant Professor of Pharmacology. JANET TRAVELL, Instructor in Pharmacology.

Work in this department is offered during the second and third years.

#### I. PHARMACOLOGY

Course 1. LABORATORY. The experiments are designed to illustrate a wide range of pharmacologic actions, the more important drugs being considered with reference to their actions on different structures. Professors HATCHER and GOLD and Dr. TRAVELL.

Course 2. Lectures. Lectures, conferences and written reviews on systematic pharmacology. Professors HATCHER and GOLD.

### II. MATERIA MEDICA AND PHARMACY

Course 3. Elementary Pharmacy and Toxicology. Consideration of crude drugs, and making pharmacopeial preparations of the different pharmaceutical classes (extracts, pills, etc.) and toxicologic analysis. Each laboratory exercise is preceded by an informal discussion of the work and its relation to therapeutics. Dr. Travell.

Course 4. Prescription Writing. A course of eight hours. Dr. Gold.

Course 5. Research. Students are encouraged to conduct original research under the supervision of the members of the staff. Such work affords a valuable insight into pharmacologic methods, and assists in the formation of a correct estimate of the original work of others. Elective.

### **ELECTIVE COURSES**

The department will arrange a schedule of work for fourth year students who wish to devote their elective time to pharmacology.

## COURSES OPEN TO STUDENTS OF THE GRADUATE SCHOOL

Course 1. LABORATORY PHARMACOLOGY. Under supervision and including conferences with instructor. Fee \$25.

Course 2. Research Work in Pharmacology.\* Subject to special arrangement with the head of the department.

## APPLIED PATHOLOGY AND BACTERIOLOGY

WILLIAM J. ELSER, Professor of Applied Pathology and Bacteriology. RALPH G. STILLMAN, Assistant Professor of Clinical Pathology. George W. Wheeler, Assistant Professor of Applied Bacteriology. Gustav I. Steffen, Instructor in Applied Bacteriology. Ruth Thomas, Instructor in Applied Bacteriology. ELIZABETH WATSON, Assistant in Applied Bacteriology.

The introductory required course is given in the fourth quarter of the second year. It consists of 128 hours of lectures and laboratory work. This time is devoted to the teaching and practical application of methods for the examination of urine, blood, sputum, exudates, transudates, spinal fluid, gastric contents and feces. The methods studied will include chemical, morphological, serological, cultural and animal inoculation methods which are of value as diagnostic procedures. There will also be included discussion of the significance of findings.

<sup>\*</sup> This course may be begun at any time.

## **MEDICINE**

EUGENE F. DuBois, Professor of Medicine. G. CANBY ROBINSON, Professor of Medicine. LEWIS A. CONNER, Professor of Clinical Medicine. WILLIAM R. WILLIAMS, Professor of Clinical Medicine. WALTER L. NILES, Professor of Clinical Medicine. Nellis B. Foster, Professor of Clinical Medicine. MALCOLM GOODRIDGE, Professor of Clinical Medicine. Joseph C. Roper, Professor of Clinical Medicine. JOHN W. CHURCHMAN, Professor of Experimental Therapeutics. HENRY B. RICHARDSON, Associate Professor of Medicine. HAROLD J. STEWART, Associate Professor of Medicine. WILLIAM C. THRO, Associate Professor of Medicine (Clinical Pathology). PAUL REZNIKOFF, Assistant Professor of Medicine. HAROLD G. WOLFF, Assistant Professor of Medicine (Neurology). Russell L. Cecil, Assistant Professor of Clinical Medicine. ROBERT A. COOKE, Assistant Professor of Clinical Medicine. EDWARD CUSSLER, Assistant Professor of Clinical Medicine. CARY EGGLESTON, Assistant Professor of Clinical Medicine. CONNIE M. GUION, Assistant Professor of Clinical Medicine. ARTHUR L. HOLLAND, Assistant Professor of Clinical Medicine. WILLIAM S. LADD, Assistant Professor of Clinical Medicine. HAROLD E. B. PARDEE, Assistant Professor of Clinical Medicine. HENRY J. Spencer, Assistant Professor of Clinical Medicine. Douglas Symmers, Assistant Professor of Applied Pathology. HARRY A. Bray, Lecturer in Medicine (Tuberculosis). ROBERT O. LOEBEL, Instructor in Medicine. EDITH E. NICHOLLS, Instructor in Medicine. EPHRAIM SHORR, Instructor in Medicine. WENDELL J. STAINSBY, Instructor in Medicine. W. D. STRAYHORN, Instructor in Medicine. HORACE S. BALDWIN, Instructor in Clinical Medicine. HAROLD S. BELCHER, Instructor in Clinical Medicine. ALICE R. BERNHEIM, Instructor in Clinical Medicine. JAMES M. BETHEA, Instructor in Clinical Medicine. GEORGE E. BINKLEY, Instructor in Clinical Medicine. EDWARD A. BURKHARDT, Instructor in Clinical Medicine. LAILA COSTON CONNER, Instructor in Clinical Medicine. THEODORE J. CURPHEY, Instructor in Clinical Medicine. JEAN A. CURRAN, Instructor in Clinical Medicine. EDWARD M. DODD, Instructor in Clinical Medicine. Frank M. Falconer, Instructor in Clinical Medicine. EMIL A. FALK, Instructor in Clinical Medicine.

EDWIN T. HAUSER, Instructor in Clinical Medicine. Louis A. Hauser, Instructor in Clinical Medicine. MILTON HELPERN, Instructor in Clinical Medicine. EVELYN HOLT, Instructor in Clinical Medicine. LESLIE A. HOMRICH, Instructor in Clinical Medicine. EDMUND R. P. JANVRIN, Instructor in Clinical Medicine. JANETTE JENNISON, Instructor in Clinical Medicine. Scott Johnson, Instructor in Clinical Medicine. CHARLES KAUFMAN, Instructor in Clinical Medicine. ESTELLE KLEIBER, Instructor in Clinical Medicine. ELIZABETH KNOX, Instructor in Clinical Medicine. Berton Lattin, Instructor in Clinical Medicine. DOROTHEA LEMCKE, Instructor in Clinical Medicine. LEON I. LEVINE, Instructor in Clinical Medicine. Asa L. Lincoln, Instructor in Clinical Medicine. VICTOR W. LOGAN, Instructor in Clinical Medicine. KIRBY MARTIN, Instructor in Clinical Medicine. ARTHUR M. MASTER, Instructor in Clinical Medicine. Annie Parks McCombs, Instructor in Clinical Medicine. WILLIAM J. MERSEREAU, Instructor in Clinical Medicine. ELIZABETH NICHOLLS, Instructor in Clinical Medicine. NORMAN PAPAE, Instructor in Clinical Medicine. Douglass Palmer, Instructor in Clinical Medicine. Anna Platt, Instructor in Clinical Medicine. NORMAN PLUMMER, Instructor in Clinical Medicine. ADA C. REID, Instructor in Clinical Medicine. JOHN H. RICHARDS, Instructor in Clinical Medicine. HOWARD S. RIGGINS, Instructor in Clinical Medicine. THERESA SCANLAN, Instructor in Clinical Medicine. JOHN B. Schwedel, Instructor in Clinical Medicine. AARON D. SPIELMAN, Instructor in Clinical Medicine. JOHN W. STICKNEY, Instructor in Clinical Medicine. EDWARD TOISTOI, Instructor in Clinical Medicine. MARIAN TYNDALL, Instructor in Clinical Medicine. MATHEW WALZER, Instructor in Clinical Medicine. JAMES H. WHALEY, JR., Instructor in Clinical Medicine. ALEXANDER H. WILLIAMSON, Instructor in Clinical Medicine. DAN H. WITT, Instructor in Clinical Medicine. George J. Young, Instructor in Clinical Medicine. Morris M. Zucker, Instructor in Clinical Medicine. THOMAS H. HAM, Assistant in Medicine. JANE LOCKWOOD, Assistant in Medicine. JAMES B. McLester, Assistant in Medicine. LAURENCE MISCALL, Assistant in Medicine. THEODORE W. OPPEL, Assistant in Medicine. WILLIAM D. STUBENBORD, Assistant in Medicine. WILLIAM L. WHEELER, JR., Assistant in Medicine.

ABRAHAM A. ANTOVILLE, Assistant in Clinical Medicine. DAVID GLUSKER, Assistant in Clinical Medicine. ISABEL M. LONDON, Assistant in Clinical Medicine.

#### NEUROLOGY

Foster Kennedy, Professor of Clinical Neurology.
Lewis D. Stevenson, Assistant Professor of Clinical Neurology.
George H. Hyslop, Instructor in Clinical Neurology.
S. Bernard Wortis, Instructor in Clinical Neurology.
Louis Hausman, Instructor in Clinical Neurology.
Aaron Bell, Instructor in Clinical Neurology.
Alfred Ehrenclou, Instructor in Clinical Neurology.
Peter Denker, Instructor in Clinical Neurology.

#### DERMATOLOGY

HANS J. SCHWARTZ, Professor of Clinical Medicine. J. Frank Fraser, Assistant Professor of Clinical Medicine. FIELDING TAYLOR, Associate in Clinical Medicine. RAY H. RULISON, Associate in Clinical Medicine. ARTHUR W. GRACE, Instructor in Medicine. Joseph C. Amersbach, Instructor in Clinical Medicine. WILLIAM M. ARCHER, Instructor in Clinical Medicine. JAMES R. BEARD, JR., Instructor in Clinical Medicine. ANDREW J. GILMOUR, Instructor in Clinical Medicine. CHARLES K. GOOD, Instructor in Clinical Medicine. JOHN H. HARRIS, Instructor in Clinical Medicine. ARTHUR F. KRAETZER, Instructor in Clinical Medicine. GEORGE M. LEWIS, Instructor in Clinical Medicine. Julia V. Lichtenstein, Instructor in Clinical Medicine. HENRY D. NILES, Instructor in Clinical Medicine. MABEL G. SILVERBERG, Instructor in Clinical Medicine.

#### GENERAL MEDICINE

In the third quarter of the second year the students start their course in physical diagnosis and are introduced to this subject by means of lectures, demonstrations and practical work on normal subjects and patients. In the fourth quarter they spend two mornings a week with patients on the wards or in the dispensary. Their afternoons will be devoted to the course in clinical pathology given by Dr. Elser, Professor of Applied Pathology and Bacteriology.

During the first three quarters of the third year the students will spend most of their time on the wards working as clinical clerks, one quarter being spent in medicine. In the college year 1932-1933 this work will be on the wards of the Second Medical Division of Bellevue Hospital but in subsequent years at New York Hospital. There will be two amphitheatre clinics a week in medicine intended for both third and fourth year students. These will be held from twelve to one o'clock

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at the medical school, but the students taking their clerkships at Bellevue will not be expected to attend on account of the distance between the two institutions.

Dr. Henry J. Spencer, Director of the Second Medical Division of Bellevue Hospital, will have charge of the work of the third year clinical clerks at Bellevue. Students will be assigned cases suitable for complete study and will be expected to take histories, make physical examinations, and perform the necessary laboratory tests. The bedside work will be supplemented by clinical pathological conferences, seminars, demonstrations and formal clinics in which the students present their cases to the staff. The wards of Bellevue Hospital contain an ample number of patients suitable for this work and there is a

large supply of autopsy material.

The senior clinical work in medicine begins with the fourth quarter of the third year. At this time the class is divided into five groups, so that each group, before graduation, spends one quarter of the academic year in medicine. During the session of 1932-1933 they will be assigned to the wards of New York Hospital as clinical clerks. When acting as clinical clerks, their training will be similar to that outlined for the third year students, but they will be able to attend the amphitheatre clinics from twelve to one and they will also be given instruction in the out-patient department. Dr. William C. Thro will be in charge of the laboratory work of the clinical clerks. Other members of the Department of Medicine will, in rotation supervise their clinical work.

After June 1933 the senior clinical students will spend most of their time in the out-patient department. They will be assigned to the sections in general medicine and to special clinics such as neurology, dermatology and syphilis. The practical work with patients will be

supplemented by lectures, demonstrations and seminars.

NEUROLOGY. The Neurological Service of Bellevue Hospital under Dr. Foster Kennedy offers unusual opportunities for clinical study and special investigation. It consists of male and female wards for the study of medical and surgical neurology. In addition, the laboratory for experimental neurology under the direction of Dr. Wortis, and the laboratory for neuropathology under the direction of Dr. Stevenson, are integrated with the medical and surgical work. All these services are available for the instruction of graduate and undergraduate students. Arrangements regarding hours will be made later.

DERMATOLOGY AND SYPHILIS. There will be a large and active clinic at New York Hospital. Some of the beds in the medical wards will be

used for teaching purposes.

Instruction in dermatology and syphilology is given in the third and fourth years. No teaching is didactic; the cutaneous diseases are demonstrated on the living subject. Abundance of material for such instruction is available, and the student can thoroughly familiarize himself with the more common as well as with the rarer diseases of the skin by actual personal touch and observation. Attention is paid

particularly to the diagnosis and etiology of skin diseases, but the general principles of therapeutics are fully discussed and their application to the individual case pointed out. Practical instruction is also given in the preparation and administration of the arsphenamins, in the technic of intravenous and intramuscular injections, lumbar puncture and the various forms of physical therapy.

#### **ELECTIVE COURSES**

During 1932-1933 one eighth of the class will always be available for elective work. It is planned to have a variety of courses available for these students. The policy of the department is to offer several parallel courses by different instructors, so that students may make their own selections. Opportunities will be given in the special clinics devoted to the diseases of the circulatory system, of the lungs, of metabolism, neurology, syphilis and dermatology, hematology, arthritis, allergy and gastro-intestinal disorders. There will be a number of electives in general medicine on the wards and in the out-patient department. Arrangements are being made for special work in tuberculosis at the New York State Hospital for Incipient Tuberculosis under Dr. Bray.

It is hoped and expected that a large number of the students during their elective period will engage in research work either in the clinics or in the laboratories. Special arrangements must be made individually, but if a sufficient number of students are interested in any special laboratory work regular courses can be organized.

## **OBSTETRICS AND GYNECOLOGY**

H. J. STANDER, Professor of Obstetrics and Gynecology.

GEORGE GRAY WARD, Professor of Clinical Obstetrics and Gynecology. HERBERT F. TRAUT, Associate Professor of Obstetrics and Gynecology. James A. Harrar, Associate Professor of Clinical Obstetrics and Gynecology.

R. GORDON DOUGLAS, Assistant Professor of Obstetrics and Gynecology.

LILIAN K. P. FARRAR, Assistant Professor of Clinical Obstetrics and Gynecology.

C. Frederic Jellinghaus, Assistant Professor of Clinical Obstetrics and Gynecology.

Hervey C. Williamson, Assistant Professor of Clinical Obstetrics and Gynecology.

Lucius A. Wing, Assistant Professor of Clinical Obstetrics and Gyne-

Lucius A. Wing, Assistant Professor of Clinical Obstetrics and Gynecology.

KATHERINE KUDER, Instructor in Obstetrics and Gynecology.
ANDREW A. MARCHETTI, Instructor in Obstetrics and Gynecology.
OGDEN F. CONKEY, Instructor in Clinical Obstetrics and Gynecology.

Lynn L. Fulkerson, Instructor in Clinical Obstetrics and Gynecology. William H. Hawkins, Instructor in Clinical Obstetrics and Gynecology.

HOWARD S. McCANDLISH, Instructor in Clinical Obstetrics and Gyne-

JOHN F. McGrath, Instructor in Clinical Obstetrics and Gynecology. MEYER ROSENSOHN, Instructor in Clinical Obstetrics and Gynecology. Kyle B. Steele, Instructor in Clinical Obstetrics and Gynecology. RAYMOND SQUIER, Assistant in Obstetrics and Gynecology. CHARLES M. McLane, Assistant in Obstetrics and Gynecology. PAUL M. ASHTON, Assistant in Obstetrics and Gynecology. ARTHUR V. GREELEY, Assistant in Obstetrics and Gynecology. WILLIAM G. TERWILLIGER, Assistant in Obstetrics and Gynecology. EMMETT A. MECHLER, Assistant in Obstetrics and Gynecology. ROBERT L. CRAIG, Assistant in Clinical Obstetrics and Gynecology. Walter C. Goddard, Assistant in Clinical Obstetrics and Gynecology. Joseph N. Nathanson, Assistant in Clinical Obstetrics and Gynecology. JOHN A. O'REGAN, Assistant in Clinical Obstetrics and Gynecology. Nelson B. Sackett, Assistant in Clinical Obstetrics and Gynecology. JACOB T. SHERMAN, Assistant in Clinical Obstetrics and Gynecology. Frank R. Smith, Assistant in Clinical Obstetrics and Gynecology. CHARLES T. SNYDER, Assistant in Clinical Obstetrics and Gynecology. GRETA STÖHR, Assistant in Clinical Obstetrics and Gynecology.

#### T. THIRD YEAR

Course 1. The Theory and Principles of Obstetrics and Gynecology. This course consists of lectures and demonstrations covering the anatomy and physiology of the female reproductive system; the physiology and pathology of pregnancy, labor, and puerperium; and the etiology, pathology, and diagnosis of the diseases of the pelvic structures.

Wednesday and Friday, 4-5; first, second, and third quarters, to the whole class. Professors Stander, Traut and Douglas.

Course 2. Practical Instruction. The courses offered are (a) palpation; (b) pelvic examination; (c) manikin exercises; (d) obstetrical and gynecological pathology; (e) obstetrical and gynecological bacteriology and isolation technic; (f) demonstrations; (g) dispensary clinics.

To one-third of the class, instruction will be given every morning

from 9-12, except Saturday, throughout one quarter.

Course 3. WARD ROUNDS. Monday, Wednesday, Friday, 9-10. Professor STANDER and staff.

Course 4. Obstetrical and Gynecological Clinics. Tuesdays, 12-1 throughout the year. Professors Stander, Ward, Harrar, Jelling-HAUS, and WILLIAMSON, and Dr. McGRATH.

#### II. FOURTH YEAR

Course I. OBSTETRICAL AND GYNECOLOGICAL CLINICS. Tuesday, 12-1, throughout the year, together with the third year class.

Course 2. Major Practical Obstetrics and Gynecology. This course comprises practical work in obstetrics and gynecology and is the sequel to the theoretical instruction offered to the third year students. Each student will live in the Woman's Clinic and the Berwind Clinic for a period of one month, during which time he will act as a clinical assistant in the obstetrical and gynecological departments, hospital wards, and delivery and operating rooms. He will be provided with sleeping accommodations, but not with board.

The practical work includes the prenatal care of many patients, attending them in labor, their delivery, as well as following them throughout the course of the puerperium. Facilities will also be provided for the student to examine gynecological patients, and to follow

these patients through diagnostic and therapeutic procedures. One month's residence throughout the quarter.

### **ELECTIVE COURSES**

Course 1. Practical Obstetrics and Gynecology. A certain number of students will be accepted for periods of one month to serve as assistants in the clinic.

Course 2. To a limited number of students elective research courses will be offered in the chemical, pathological, and bacteriological laboratories of the department throughout the year.

## PEDIATRICS

OSCAR M. SCHLOSS, Professor of Pediatrics.

LYNNE A. HOAG, Assistant Professor of Pediatrics.

SAMUEL Z. LEVINE, Assistant Professor of Pediatrics.

Louis C. Schroeder, Assistant Professor of Clinical Pediatrics.

MAY G. WILSON, Assistant Professor of Clinical Pediatrics.

LUDWIG SCHOENTHAL, Associate in Pediatrics.

ARTHUR F. ANDERSON, Associate in Clinical Pediatrics.

PHILIP M. STIMSON, Associate in Clinical Pediatrics.

VERNON W. LIPPARD, Instructor in Pediatrics.

M. Bernard Brahdy, Instructor in Clinical Pediatrics.

ROBERT O. DuBois, Instructor in Clinical Pediatrics.

FREDERICK C. HUNT, Instructor in Clinical Pediatrics.

Jesse F. Sammis, Instructor in Clinical Pediatrics.

CARL H. SMITH, Instructor in Clinical Pediatrics.

T. Durland Van Orden, Instructor in Clinical Pediatrics.

THOMAS E. WALDIE, Instructor in Clinical Pediatrics.

WILLIAM S. ANDERSON, Assistant in Pediatrics.

HARRY GORDON, Assistant in Pediatrics.

THOMAS H. McEachern, Assistant in Pediatrics.

CHARLES H. O'REGAN, Assistant in Pediatrics.

WILLIAM SCHMIDT, Assistant in Pediatrics.

W. Gordon Watt, Assistant in Pediatrics.

MARJORIE A. WHEATLEY, Assistant in Pediatrics. KATHERINE WOODWARD, Assistant in Pediatrics.

ELEANOR MARPLES, Research Assistant in Pediatrics.

THIRD YEAR. A clinical lecture once a week throughout the entire school year, presenting cases illustrating diseases peculiar to early life. Groups of students are assigned to the wards where they are given opportunity to examine sick infants and are given instruction in diagnosis and treatment. Instruction in contagious diseases is given at the Willard Parker Hospital.

FOURTH YEAR. Groups of students are on duty in the out-patient department. Here they gain experience in history taking, physical examination and treatment.

### **ELECTIVE COURSES**

Elective students serve as clinical clerks on the wards and are on duty continuously for a period of one month.

## **PSYCHIATRY**

GEORGE S. AMSDEN, Professor of Psychiatry. MORTIMER W. RAYNOR, Professor of Clinical Psychiatry. I. J. FURMAN, Professor of Clinical Psychiatry. GEORGE W. HENRY, Associate Professor of Psychiatry. HARRY M. TIEBOUT, Associate Professor of Psychiatry. Bruce Webster, Assistant Professor of Medicine. Joseph P. Eidson, Assistant Professor of Clinical Psychiatry. PHYLLIS GREENACRE, Assistant Professor of Clinical Psychiatry. CARL BINGER, Assistant Professor of Clinical Medicine. CHARLES D. RYAN, Instructor in Psychiatry. Norvelle C. La Mar, Instructor in Psychiatry. WILLIAM H. DUNN, Instructor in Psychiatry. GEORGE S. STEVENSON, Instructor in Clinical Psychiatry. CHARLES G. McGAFFIN, Instructor in Clinical Psychiatry. MICHAEL P. LONERGAN, Instructor in Clinical Psychiatry. MILDRED SQUIRES, Assistant in Psychiatry. B. MILDRED EVANS, Assistant in Psychiatry. VALER BARBU, Assistant in Psychiatry.

Instruction in Psychiatry is given in each of the four college years. In the first year twenty-four hours are devoted to psychobiology. This course seeks to acquaint the student with those aspects of comparative psychology and of the psychology of the individual which are not only of psychiatric importance, but which are equally important for an understanding of the individual in an approach from any other medical point of view. The focusing point of the course is the study of the personality.

In the second year a corresponding course of 23 hours is devoted to psychopathology. This course is so planned as to bring before the student those tendencies in the race and the individual which lend themselves to faulty adjustment and those specific mechanisms by which maladjustment is favored and hindered. Special attention is

given to manifestations of emotional and mental difficulties which may under circumstances arise in the average individual and in persons suffering from any form of somatic disorder or disease. The object of the course is to provide the student with a broad conception of personality and behavior deviation, as well as to serve as an introduction to psychiatry. Instruction in methods of examination and history tak-

ing is also provided.

In the third year each student serves 60 hours in the in-patient division of the psychiatric clinic of the New York Hospital. This department, newly established for the investigation, prevention, and curative treatment of emotional and mental disorders, is a private hospital with a capacity of 110 beds and forms one unit of the New York Hospital-Cornell Medical College Association. As far as possible only one student is assigned to an instructor for whom he acts as clinical clerk. The clinical service includes an opportunity to observe and study manifestations not only in adults, but in the pre-school, the pre-

adolescent, and the adolescent individual.

Instruction during the fourth year is given chiefly in the outpatient division of the psychiatric clinic of the New York Hospital. Here the instructor also devotes himself to a single student who serves as an assistant to the instructor. The purpose is to give the student an opportunity to observe and take part in a type of psychiatric practice equivalent to that carried on by a sound private practitioner of psychiatry. Some instruction is given at Bloomingdale Hospital at White Plains, New York, a private psychiatric hospital which is a part of the Society of the New York Hospital. Opportunity is afforded also in both the third and fourth years to become acquainted with special forms and degrees of intensity of psychosis in the extensive clinical service of the Manhattan State Hospital, Ward's Island, New York City.

Special clinical demonstration with summary discussions is held every other week for the combined third and fourth year classes. Elective courses are provided for undergraduates during the fourth year. Graduate instruction is being planned, based upon a comprehensive plan for a prolonged and thorough training in psychiatry.

## SURGERY

George J. Heuer, Professor of Surgery.
Joshua E. Sweet, Professor of Experimental Surgery.
N. Chandler Foot, Professor of Surgical Pathology.
Charles E. Farr, Professor of Clinical Surgery.
John A. Hartwell, Professor of Clinical Surgery.
Burton J. Lee, Professor of Clinical Surgery.
Henry H. M. Lyle, Professor of Clinical Surgery.
Eugene H. Pool, Professor of Clinical Surgery.
Pol N. Coryllos, Professor of Clinical Surgery.
William DeW. Andrus, Associate Professor of Surgery.
Seward Erdman, Assistant Professor of Clinical Surgery.

Guilford S. Dudley, Assistant Professor of Clinical Surgery. JOHN C. A. GERSTER, Assistant Professor of Clinical Surgery. Russel H. Patterson, Assistant Professor of Clinical Surgery. Morris K. Smith, Assistant Professor of Clinical Surgery. Byron Stookey, Assistant Professor of Clinical Surgery. JOHN A. VIETOR, Assistant Professor of Clinical Surgery. RALPH F. Bowers, Instructor in Surgery. RICHARD MEAGHER, Instructor in Surgery. HERBERT BERGAMINI, Instructor in Clinical Surgery. JACOB BUCKSTEIN, Instructor in Clinical Radiology. HENRY S. F. COOPER, Instructor in Clinical Surgery. Nelson W. Cornell, Instructor in Clinical Surgery. PAUL A. DINEEN, Instructor in Clinical Surgery. JOHN H. GARLOCK, Instructor in Clinical Surgery. A. LeRoy Johnson, Instructor in Clinical Surgery (Dentistry). Joseph E. J. King, Instructor in Clinical Surgery. Leila C. Knox, Instructor in Surgical Pathology. Frank J. McGowan, Instructor in Clinical Surgery. EDWARD W. SAUNDERS, Instructor in Clinical Surgery. RUFUS E. STETSON, Instructor in Clinical Surgery. Francis A. Sutherland, Instructor in Clinical Surgery. JOHN E. SUTTON, JR., Instructor in Clinical Surgery. Preston A. Wade, Instructor in Clinical Surgery. W. Morris Weeden, Instructor in Clinical Surgery. ROBERT A. Wise, Instructor in Clinical Surgery. FRANK C. YEOMANS, Instructor in Clinical Surgery. COURTNEY C. BISHOP, Assistant in Surgery. RICHARD D. BULLARD, Assistant in Surgery. J. Herbert Conway, Assistant in Surgery. JOHN W. DRAPER, Assistant in Surgery. George R. Dunlop, Assistant in Surgery. Frank N. Glenn, Assistant in Surgery. MERTON L. GRISWOLD, Assistant in Surgery. CRANSTON W. HOLMAN, Assistant in Surgery. L. G. Kendall, Assistant in Surgery. WILLIAM DE G. MAHONEY, Assistant in Surgery. Samuel W. Moore, Assistant in Surgery. Bronson S. Ray, Assistant in Surgery. John G. Schmidt, Assistant in Surgery. MALCOLM McN. SMITH, Assistant in Surgery. Rose Andre, Assistant in Clinical Surgery. George L. Birnbaum, Assistant in Clinical Surgery. JOHN S. DAVIS, Assistant in Clinical Surgery. WADE DULEY, Assistant in Clinical Surgery. ROBERT K. FELTER, Assistant in Clinical Surgery. D. Rees Jensen, Assistant in Clinical Surgery. FLORENCE WEST, Research Assistant in Surgery. MARY COOPER, Research Assistant in Surgery. Penelope Marsh, Bacteriologist.

#### OPHTHALMOLOGY

Bernard Samuels, Professor of Clinical Surgery.
Milton L. Berliner, Instructor in Clinical Surgery.
Truman L. Boyes, Instructor in Clinical Surgery.
Charles A. Drake, Instructor in Clinical Surgery.
Harry Eggers, Instructor in Clinical Surgery.

#### ORTHOPEDIC SURGERY

CHARLTON WALLACE, Professor of Clinical Surgery. IRVING BALENZWEIG, Instructor in Clinical Surgery. KRISTIAN G. HANSSON, Instructor in Clinical Surgery. TOUFICK NICOLA, Instructor in Clinical Surgery. CHARLES L. PLUNKETT, Instructor in Clinical Surgery.

#### OTOLARYNGOLOGY

Arthur Palmer, Assistant Professor of Clinical Surgery; Acting Head of Department of Otolaryngology.

Gervais W. McAuliffe, Assistant Professor of Clinical Surgery.
Jay Dashiell Whitham, Assistant Professor of Clinical Surgery.
Jacob Applebaum, Instructor in Clinical Surgery.

Emmett C. Fitch, Instructor in Clinical Surgery.

Thomas J. Garrick, Instructor in Clinical Surgery.

Russell C. Grove, Instructor in Clinical Surgery.

S. Farrar Kelley, Instructor in Clinical Surgery.

James O. Macdonald, Instructor in Clinical Surgery.

Thomas J. Mulcahy, Instructor in Clinical Surgery.

Edgar M. Pope, Instructor in Clinical Surgery.

#### UROLOGIC SURGERY

EDWARD L. KEYES, Professor of Clinical Surgery.

A. RAYMOND STEVENS, Associate Professor of Clinical Surgery.

HOWARD S. JECK, Assistant Professor of Clinical Surgery.

MIGUEL ALVAREZ, Instructor in Clinical Surgery.

BENJAMIN S. BARRINGER, Instructor in Clinical Surgery.

WILLIAM R. DELZELL, Instructor in Clinical Surgery.

RUSSELL S. FERGUSON, Assistant in Clinical Surgery.

ALLISTER M. MCLELLAN, Assistant in Clinical Surgery.

#### GENERAL SURGERY

The teaching of surgery begins in the fourth quarter of the second year with a course illustrating the principles of surgery. It consists of a series of exercises carried out by the students upon living animals, emphasizing surgical cleanliness, aseptic technic, the control of hemorrhage, the healing of wounds, etc. The exercises are supplemented by reading, conferences, and pathological demonstrations.

THIRD YEAR. Each student group spends one quarter in the surgical wards in the capacity of clinical clerks. During this period the student

SURGERY

gains experience in history taking, physical examination and routine laboratory examinations, and is brought into contact with patients, with general surgical, urological, orthopedic, ophthalmological and otolaryngological conditions. The routine teaching consists of reading exercises and conferences, ward visits in general surgery and the surgical specialties and exercises in surgical pathology. In this teaching the facilities of the Second Surgical Division, Bellevue Hospital, of St. Luke's, Memorial, St. Mary's Hospitals, and of special hospitals will be utilized in addition to those of New York Hospital.

FOURTH YEAR. Each student group spends two quarters in the outpatient department. The morning hours are devoted to the general diagnostic clinic, the afternoon hours to the special clinics of urology, orthopedic surgery, ophthalmology, and otolaryngology. Time is allotted to visit patients admitted to the wards of the hospital. The routine teaching consists of conferences, clinics, and assigned reading.

A surgical clinic is held one day a week at the noon hour for stu-

dents of the third and fourth years.

The third and fourth year students have the privilege of the operating room. Attendance at all times is not compulsory, but each student is expected to see his own patients operated upon, and to examine the pathological material. Instruction in anesthesia, begun in the second year, is continued in the third and fourth years. Opportunities to assist at operations will be given. A series of conferences on special subjects in surgery are given one day a week to the group in surgery.

#### **OPHTHALMOLOGY**

Instruction is given in ophthalmoscopy in the second, third, and fourth years. During the second year the class is instructed in the laboratory, in the microscopy of the eye by Dr. Samuels. In addition to normal histology, such important diseases as uveitis, glaucoma, intra-ocular tumors, tuberculosis, injuries and sympathetic ophthalmia are covered.

In the third year the class is divided into sections and instruction is given in ophthalmology each Tuesday afternoon during the period assigned to surgery.

### ORTHOPEDIC SURGERY

Instruction in this department is carried on during the third and ourth years.

During the third year there will be an opportunity for a series of lectures and clinical demonstrations in orthopedic surgery—the exact time to be announced later.

In the fourth year, one-eighth of the class will receive instruction in congenital and acquired deformities for a period of four weeks on Mondays, and Fridays from nine until twelve, and on Wednesday afternoons. Opportunities will be offered in methods of examination, diagnosis and treatment, with informal discussions.

#### **ELECTIVE COURSES**

Courses are offered in advanced general surgery, surgical pathology, experimental surgery, neuro-surgery, thoracic surgery, and in the specialties of surgery; urology, orthopedic surgery, ophthalmology and otolaryngology. Elective work combined with medicine is also offered in special clinics in the out-patient department. More detailed information regarding these electives may be had by consulting the head of the surgical department.

#### COURSE OFFERED TO SPECIAL STUDENTS

A special course in surgery based upon the resident system is offered to a limited number of physicians who are graduates of approved medical schools and who have completed one year's interneship or its equivalent in an approved hospital. Detailed information regarding this course will be furnished on request by the head of the surgical department.

#### OTOLARYNGOLOGY

During the third year each student will receive instruction in the examination of the ear, nose and throat. The anatomy of the head is reviewed and exercises in instrumentation are given. Certain clinical lectures, illustrated by lantern slides and by the presentation of cases, are given each section. Instruction will include topics on preoral endoscopy and rhinoplasty.

#### UROLOGIC SURGERY

The course is designed to give instruction in diagnosis and treatment of the surgical diseases of the urinary and male genital organs.

# PUBLIC HEALTH AND PREVENTIVE MEDICINE

JOHN C. TORREY, Professor of Epidemiology and Acting Head of the Department of Public Health and Preventive Medicine.

Walter C. Klotz, Assistant Professor of Public Health and Preventive Medicine.

MORTON C. KAHN, Assistant Professor of Public Health and Preventive Medicine.

RALPH W. NAUSS, Instructor in Public Health and Preventive Medicine.

During the transition schedule of the year 1932-33 no public health courses are given because the fourth year class has already completed the work. In the future the course will be given to fourth year students.

This is a comprehensive course dealing with the fundamental factors concerned in the origin, increase and control of communicable and non-communicable diseases. It is intended to familiarize the student with the opportunities for disease prevention through public health

organizations and in private practice, both in urban and rural communities. Among the subjects discussed in a series of lectures are environmental control, sources and modes of infection, specific and non-specific prophylaxis, vital statistics and public health administration. Many of these subjects are illustrated by laboratory and field demonstrations. 80 hours, first two quarters, fourth year.

#### **ELECTIVE COURSES**

Course 1. EPIDEMIOLOGY. A study of the factors and principles concerned in the origin, spread and abatement of the more important communicable diseases as illustrated by past and, when possible, current outbreaks. Collection of epidemiological data and statistical analyses. Conferences. Hours to be arranged.

Course 2. Medical Zoology and Parasitology. This course is intended to supplement and extend the required work in this field. Diagnosis, life histories of parasites and their vectors, and control measures are considered. Laboratory work and conferences. Hours to be arranged.

### RADIOLOGY

HARRY M. IMBODEN, Professor of Clinical Radiology.

JOHN R. CARTY, Associate Professor of Radiology.

CORNELIUS V. KILBANE, Assistant Professor of Radiology.

SYDNEY WEINTRAUB, Assistant Professor of Clinical Radiology.

E. FORREST MERRILL, Instructor in Clinical Radiology.

STEPHEN WHITE, Instructor in Clinical Radiology.

IRVING SCHWARTZ, Instructor in Clinical Radiology.

#### RADIOLOGY AND RADIOTHERAPY

This course is planned to give an introduction to the fundamentals of radiology in order that the student may more intelligently utilize this aid to diagnosis and therapy. The course consists of didactic lectures and section work. Emphasis will be laid on instruction given in connection with the clinical findings. New methods in diagnosis and therapy will be discussed, and the limitations and scope of the particular method will be stressed.

The lectures will begin with a consideration of the principles of the physics involved, followed by a discussion of the findings in the various systems on the fluoroscopic screen and film.

Radiotherapy will be discussed, particularly the indications for and limitations of this method of treatment in various pathological conditions. Special emphasis will be laid on the use of x-ray therapy as a diagnostic measure. Attention will also be paid to the use of x-ray therapy in non-malignant conditions.

### HISTORY OF MEDICINE

G. CANBY ROBINSON, Professor of Medicine.

An elective course is offered consisting of a series of lectures on the history of medicine which may be attended by students of all classes. The purpose of this course is to present each year a period in the development of knowledge pertaining to medicine and to attempt to link the progress of medicine with other historical events. It is planned to have the course extend over four years and to take up a different phase of medical history each year, so that the various important epochs may be eventually considered. For students especially interested in the history of medicine, further opportunities may be offered through seminars and informal discussions. Special lecturers on historical subjects are presented when opportunities are found.

### MILITARY SCIENCE AND TACTICS

THOMAS G. TOUSEY, Major, M.C., U. S. Army, Professor of Military Science and Tactics.

The elective course in military science and tactics provides an opportunity for those students who desire to broaden their training to include a knowledge of military medicine and surgery and preventive medicine. The course is divided into a basic and an advanced course. The basic course is given during the first and second college years and includes subcourses in military policy, organization and tactics, organization and functions of the Medical Department of the Army, first

aid, hygiene, and the sanitation of camps.

The advanced course is given during the third and fourth college years. Students electing to take the advanced course sign a contract with the Federal Government that they will complete the course and are paid, while taking the course, at the rate of about \$9 per month during the college session and 70 cents per day during the six weeks Summer Training Camp which all advanced course students are required to attend. The advanced course includes the following subjects: the spread and control of communicable diseases, water purification, waste disposal, war medicine, war surgery, chemical warfare, aviation medicine, hospitals, hospitalization, duties of Reserve Officers, and mobilization duties.

Upon receiving the degree of Doctor of Medicine, those students who have successfully completed the advanced course in Military Science and Tactics are offered commissions as First Lieutenants in the Medical Section, Officers' Reserve Corps of the Army of the United States. Members of the second-year advanced course are eligible to apply for

interneship in United States Army general hospitals.

# FIRST YEAR

# IST TRIMESTER

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9-10						
10-11	A mad	Anatomy	Anatomy	Anatomy	Anatomy	Anatomy
I I-I 2	Anatomy	Anatomy	Anatomy			
I 2-I		Biochemistry		Biochemistry	Biochemistry	
2-3			Titlet all and	Biochemistry		
3-4	Histology	Anatomy	Histology	Diochemistry	Histology	
4-5			*Mil. Sci.	Spec. Lect.		

# 2ND TRIMESTER

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9-10						
10-11	Histology	Histology	Histology	Anatomy	Histology	Histology
11-12						
I 2-I	Anatomy	Biochemistry	Anatomy	Biochemistry	Anatomy	
2-3			Anatomy	Biochemistry		
3-4	Anatomy	Biochemistry	Anatomy	Biochemstry	Anatomy	
4-5			*Mil. Sci.	Spec. Lect.		

# 3RD TRIMESTER

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9-10				Psychobiology		
10-11	Biochemistry	Neuro-	Biochemistry	Neuro-	Biochemistry	Neuro-
II-I2	Diochemistry	Anatomy	Diochemistry	Anatomy		Anatomy
I 2-I		Physiology		Physiology	Physiology	Physiology
2-3	Psychobiology		Psychobiology			
3-4		Physiology		Physiology	Physiology	
4-5			*Mil. Sci.	Spec. Lect.		

<sup>\*</sup> Elective.

# SECOND YEAR

# IST QUARTER

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9-10	Physiology	Physiology	Physiology	Physiology	Physiology	*Mil. Sci.
10-11						
I I - I 2	Physiology Laboratory	Pharmacology	Physiology	Pharmacology	Physiology Laboratory	Pharmacology
I 2-I						
2-3						
3-4	Bacteriology		Bacteriology		Bacteriology	
4-5				Spec. Lect.		

# 2ND QUARTER

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9-10						
10-11	Pathology	Pharmacology	Pathology	Pharmacology	Pathology	Pathology
I I - I 2	1 atmology	2 marina or ogj	2 2000000		1 atmology	
I 2-I						*Mil. Sci.
2-3						
3-4	Bacteriology		Bacteriology		Bacteriology	
4-5				Spec. Lect.	Dacteriology	

# 3RD QUARTER

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9-10						
10-11	Pathology	Pathology	Pathology	Pathology	Pathology	Pathology
I I - I 2	1 amology	Tathology	1 acnology	1 actiology	Tathology	
I 2-I						*Mil. Sci.
2-3						
3-4	Physical Diagnosis		Physical Diagnosis		Physical Diagnosis	
4-5		* Opthalmologic Pathology		Spec. Lect.		

# 4TH QUARTER

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9-10	Physical -		Physical	Physical		Physical
10-11	Diagnosis (Half of	Operative Surgery	Diagnosis (Half of	Diagnosis (Half of	Applied Anatomy	Diagnosis (Half of
I I - I 2	Class)		Class)	Class)		Class)
I 2-I	Psychopathology	Clin. Path.	Psychopathology	Clin. Path.	Psychopathology	*Mil. Sci.
2-3				Clinical		
3-4	Clinical Pathology	Clinical Pathology	Clinical Pathology	Pathology	Clinical Pathology	
4-5				Spec. Lect.		

<sup>\*</sup> Elective.

# THIRD YEAR

# IST QUARTER

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9-10						
10-11			Pharmacology			
11-12						
I 2-I	Medicine	Ob. & Gyn.	Pediatrics	Medicine	Surgery	Clin.Path.Con
2-3						
3-4						Free
4-5	Radiology	* Mil. Sci.	Obstetrics	Pharmacology	Obstetrics	

All time not specifically allotted to be devoted to clinical work in groups.

Group A. Medicine. Bellevue Hospital. Clinics held from 12-1 not required of this group except on Wednesdays.

Group B. Surgery.

Group C. Obstetrics, Pediatrics, Psychiatry.

Schedules for the work of each group to be posted on bulletin boards.

# 2ND QUARTER

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9-10						
10-11			Neuro- Pathology			
I I-I 2			rathology			
12-1	Medicine	Ob. & Gyn.	Pediatrics	Medicine	Surgery	Clin.Path.Con.
2-3						
3-4						Free
4-5		* Mil. Sci.	Obstetrics	Pharmacology	Obstetrics	

\* Elective.
All time not specifically allotted to be devoted to clinical work in groups.
Group A, Surgery.
Group B, Obstetrics, Pediatrics, Psychiatry.
Group C, Medicine. As first quarter.

# THIRD YEAR

# 3RD QUARTER

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9-10		,				
10-11			As first quarter			
I I-I 2						
I 2-I	Medicine	Ob. & Gyn.	Pediatrics	Medicine	Surgery	Clin.Path.Con.
2-3						
3-4						Free
4-5		* Mil. Sci.	Obstetrics	Spec. Lect.	Obstetrics	

Group A, Obstetrics, Pediatrics, Psychiatry. Group B, Medicine, as first quarter. Group C, Surgery.

# 4TH QUARTER

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9-10						
10-11			As first quarter			
11-12						
I 2-I	Medicine	Ob. & Gyn.	Pediatrics	Medicine	Surgery	Clin.Path.Con
2-3		,				
3-4						Free
4-5				Spec. Lect.		
5-6		* Mil. Sci.				

\* Elective.
Group A, Medicine.
Group B, Surgery.
Group C, Obstetrics and Gynecology.
Group D, Pediatrics, Psychiatry, and Elective.
Group E, Elective.
See Special Announcement for Group Work during this and subsequent quarters.

# FOURTH YEAR

# IST QUARTER

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9-10						
10-11	All tir	ne not specifica	lly allotted to b	e devoted to cli	nical work in g	roups.
11-12						
12-1	Medicine	Ob. & Gyn.	Psychiatry	Medicine	Surgery	Clin.Path.Con.
2-3						
3-4						Free
3-4						1

Group A, Surgery. Group B, Obstetrics, Gynecology and Electives. Group C, Pediatrics, Psychiatry, Orthopedics, Neurology, and Electives. See special schedule. Group D, Medicine.

# 2ND QUARTER

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9-10			•			
10-11			As first quarter			
11-12						
12-1	Medicine	Ob. & Gyn.	Psychiatry	Medicine	Surgery	Clin.Path.Con.
2-3			,			
3-4						Free
4-5				Spec. Lect.	* Mil. Sci.	

\* Elective.

Group A, Obstetrics, Gynecology, and Electives.
Group B, Pediatrics, Psychiatry, Orthopedics, Neurology, and Electives. See special schedule.
Group C, Medicine.
Group D, Surgery.

# FOURTH YEAR

# 3RD QUARTER

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9-10						
10-11			As first quarter			
11-12		1	i			t
I 2-I	Medicine	Ob. & Gyn.	Psychiatry	Medicine	Surgery	Clin.Path.Con.
2-3						
3-4						Free
4-5				Spec. Lect.	* Mil. Sci.	

Group A, Pediatrics, Psychiatry, Orthopedics, Neurology, and Elective. See special schedule. Group B, Medicine. Group C, Surgery. Group D, Obstetrics, Gynecology, and Electives.

# 4TH QUARTER

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9-10						
10-11			As first quarter			
I I-I 2						
I 2-I	Medicine	Ob. & Gyn.	Psychiatry	Medicine	Surgery	Clin, Path, Con
2-3		1	,			
3-4						Free
4-5				Spec. Lect.	*Mil. Sci.	

<sup>\*</sup> Elective.

Elective.
Group A, Medicine.
Group B, Surgery.
Group C, Obstetries, Gynecology, and Electives.
Group C, Pediatrics, Psychiatry, Orthopedics, Neurology, and Elective. See special schedule.

### FOURTH YEAR: SPECIAL SCHEDULE

### SCHEDULE I

1932-1933

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
9-10							
10-11	Orthopedics	Pediatrics	Neurology	Pediatrics	Orthopedics	Pediatrics	
11-12							
I 2-I	Medicine	Ob. & Gyn.	Psychiatry	Medicine	Surgery	Clin. Path. Con.	
2-3							
3-4	Neurology	Electives	Orthopedics	Electives	Neurology	Free	
4-5				(Spec. Lect.)	*Mil. Sci.		

<sup>\*</sup>Elective.

### SCHEDULE II

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9-10						
10-11	Electives	Psychiatry	Electives	Psychiatry	Electives	Psychiatry
11-12						
I 2-I	Medicine	Ob. & Gyn.	Psychiatry	Medicine	Surgery	Clin. Path. Con.
2-3						
3-4	Electives	Electives	Electives	Electives	Electives	Free
4-5				(Spec. Lect.)	*Mil. Sci.	

#### \*Elective.

#### IST QUARTER

Group C-1, Sched. I, Sept. 27-Oct. 25 Group C-1, Sched. II, Oct. 26-Nov. 23 Group C-2, Sched. II, Sept. 27-Oct. 25 Group C-2, Sched. I, Oct. 26-Nov. 23

#### 3RD QUARTER

Group A-1, Sched. I, Feb. 6-Mar. 4 Group A-1, Sched. II, Mar. 6-Apr. 1 Group A-2, Sched. II, Feb. 6-Mar. 4 Group A-2, Sched. I, Mar. 6-Apr. 1

#### 2ND QUARTER

Group B-1, Sched. I, Nov. 28-Dec. 21 incl. and Jan. 4-Jan. 7 incl. Group B-1, Sched. II, Jan. 9-Feb. 4
Group B-2, Sched. II, Nov. 28-Dec. 21 incl. and Jan. 4-Jan. 7 incl. Group B-2, Sched. I, Jan. 9-Feb. 4

#### 4TH QUARTER

Group D-1, Sched. I, Apr. 3-Apr. 29 Group D-1, Sched. II, May 1-May 27 Group D-2, Sched. II, Apr. 3-Apr. 29 Group D-2, Sched. I, May 1-May 27

### GRADUATE STUDENTS AND SPECIAL STUDENTS

Cornell University Medical College is primarily concerned with preparing young men and women for the degree of Doctor of Medicine, and does not choose to emphasize work for degrees of other character. There are, however, from time to time unusual opportunities for more advanced work than that required for the degree of Doctor of Medicine. This work may be special work leading to no degree, inviting those singularly fitted for such studies, or work presented by the curriculum of the Graduate School.

To avoid misunderstanding in the use of the terms Graduate School, Graduate Students, Post-Graduate Students, and Special Students, the following statement is made:

Students not pursuing the regular courses leading to the degree of Doctor of Medicine may be—

I. STUDENTS OF THE GRADUATE SCHOOL. Students in Cornell University Graduate School (for announcement of which, see page 87) may be of two classes: (a) those registered for an advanced degree and (b) those not registered for an advanced degree.

II. Special Students. All students not registered in Cornell University Graduate School and not registered for the M.D. degree are Special Students. These are special students in the true sense of the word and must be especially qualified in preparation, ability, and objective in order to receive any consideration. They may or may not be graduate students in the sense of having completed work for a collegiate degree. They are admitted by the consent of the head of the department and must be registered in the Dean's office of the medical college and must pay their fees at the Treasurer's office before being admitted to lectures or laboratory periods. They are required to carry and show on demand of the authorities a permit of attendance signed by the Dean of the college and the head of the department concerned. (For fees see page 88).

Although Cornell University Medical College intends to develop special opportunities for advanced work of high quality in the medical sciences and in the clinical fields, it does not at present offer work corresponding to that usually described as clinical post-graduate work. Certain clinical courses have been in the past offered to graduates in medicine, but these have been discontinued. Work offered to post-graduate students at present will demand a prolonged period of residence as does other graduate work. Such work is not credited toward an advanced degree unless the student be regularly registered for such a degree in the Graduate School of Cornell University and the work in question is in the curriculum of the Graduate School. Limited work of

this character is offered by some departments (See departmental announcements). Students wishing such work should consult the heads of the departments in which they wish to do the work. Usually students admitted for such work will hold either the M.D. or Ph.D. degree and in addition will have had several years of practical work. Unless they hold positions on the resident staff, they must register at the Dean's Office, pay the requisite fees, and receive a permit of attendance. For fees see courses listed under departmental announcements.

#### THE GRADUATE SCHOOL

Those contemplating entering Cornell University Graduate School should refer to the Announcement of the Graduate School, which can be obtained by addressing the Dean of the Graduate School at Ithaca, N. Y.

The Faculty of the Graduate School has control of graduate work in all departments of Cornell University and exclusive jurisdiction over the granting of all advanced degrees. Certain professors in the scientific departments of the Cornell University Medical College in New York City offer graduate instruction as an integral part of the Graduate School of Cornell University. Properly qualified students may accordingly enter upon graduate work in New York City under the jurisdiction of professors in these departments and may become candidates for advanced degrees under the same conditions as apply to stu-

dents in other divisions of the Graduate School.

Graduates of the following colleges of the University, namely, the College of Arts and Sciences, the Medical College, the College of Architecture, the College of Law, the College of Engineering, and the New York State Colleges of Agriculture, Home Economics and Veterinary Medicine—or other institutions in which the requirements for the first degree are substantially equivalent—are eligible for admission to the Graduate School. In other cases, studies pursued after graduation, and experience gained by professional work or otherwise are taken into consideration in deciding whether the candidate's preparation as a whole is such as to justify his admission to the Graduate School.

Graduate students resident in New York City and working under the direction of members of the faculty connected with Cornell University Medical College are students in the Graduate School of Cornell University, and as candidates for an advanced degree are subject to all the regulations laid down by the Faculty of the Graduate School. The members of the medical college who give instruction to graduate students constitute Group F of the Faculty of the Graduate School. Professor C. V. Morrill, Chairman of Group F, will advise with applicants for admission to the Graduate School at the medical college in New York. Applications may be addressed to the Office of the Dean of Cornell University Medical College, New York, or to the Dean of the Graduate School, Cornell University, Ithaca, N. Y.

TTTTC

	FEES	
Matri	This fee is required of every student upon entrance into	\$10
	Cornell University. It must be paid at the time of regis-	
	tration.	
Tuitio	NFEE	\$150
	This fee for the academic year is to be paid by all students registered in the Graduate School.	
Admin	istration Fee	\$25
	This fee is to be paid by all students registered in the Graduate School. It is payable in installments of \$12.50 semi-annually in advance.	
Gradu	ATION FEE	\$20
	This fee is required at least ten days before the degree is to be conferred, of every candidate for an advanced degree. The fee will be returned if the degree is not conferred.	

Certain classes of students are exempt from payment of the tuition fee. They are:

- (1) Graduate students holding appointments as University Fellows or Graduate Scholars.
- (2) Graduate students holding appointments as assistants and instructors and having their major studies in the college or line of work in which they are instructing, are exempt only from the payment of tuition fees in the department in which they are employed to give instruction; members of the instructing staff who take work for which they must pay tuition are required to pay in proportion to the amount of work for which they are registered.

### FACULTY OF MEDICINE AT ITHACA

LIVINGSTON FARRAND, A.M., M.D., LL.D., President.

ABRAM TUCKER KERR, B.S., M.D., Secretary of the Medical College at Ithaca, Professor of Anatomy.

SIMON HENRY GAGE, B.S., Professor of Histology and Embryology, Emeritus.

Benjamin Freeman Kingsbury, Ph.D., M.D., Professor of Histology and Embryology.

James Batchellor Sumner, A.M., Ph.D., Professor of Biochemistry. Howard Scott Liddell, M.A., Ph.D., Professor of Physiology.

James Wencelas Papez, A.B., M.D., Assistant Professor of Anatomy and Neurology.

Howard Bernhardt Adelmann, A.M., Ph.D., Assistant Professor of Histology and Embryology.

Joseph Alma Dye, A.B., Ph.D., Assistant Professor of Physiology.

George Harrison Maughan, A.M., Ph.D., Instructor in Physiology.

DAVID BIRNEY HAND, A.B., Instructor in Biochemistry.

ADRIAN F. REED, A.B., A.M., Instructor in Anatomy.

THEODORE SNOOK, B.S., Instructor in Histology and Embryology.

FRED A. METTLER, A.B., Instructor in Anatomy.

Andrew J. Ramsay, A.B., Instructor in Histology and Embryology.

STACEY F. HOWELL, A.B., M.S., Instructor in Biochemistry.

WILLIAM H. WALLER, A.B., Instructor in Anatomy.

RUTH McMILLAN HUNTER, A.M., Assistant in Histology and Embryology.

#### INSTRUCTION AT ITHACA

# During the First Year of the Course Calendar for Ithaca, 1932-33

#### FIRST TERM

- Sept. 26, 27 Monday and Tuesday—registration and assignment of new students.
- Sept. 27, 28 Tuesday and Wednesday—Registration and assignment of old students.
- Sept. 29 Thursday—Instruction begins.
- Oct. 21 Friday-Last day for payment of tuition for first term.
- Nov. 23 Wednesday—Instruction ends at 6 P.M.
- Nov. 28 Monday—Instruction resumed at 8 A.M.
- Dec. 17 Saturday—Instruction ends at 1 P.M. (Christmas recess).
- Jan. 2 Monday—Instruction resumed at 8 A.M.
- Jan. 11 Wednesday—Founder's Day.
- Jan. 30 Monday—Term examinations begin.
- Feb. 8 Wednesday—Term examinations end; first term closes.
- Feb. 9 Thursday—Holiday.

#### SECOND TERM

- Feb. 10 Friday-Registration of all students for the second term.
- Feb. 13 Monday—Instruction begins at 8 A.M.
- Mar. 6 Monday—Last day for payment of tuition for second term.
- April I Saturday—Instruction ends at I P.M. (Spring recess.)
- April 10 Monday-Instruction resumed at 8 A.M.
- May 27 Saturday—(Holiday) Spring and Navy Day.
- June 5 Monday—Final examinations begin.
- June 13 Tuesday—Final examinations end.
- June 19 Monday-Commencement.

#### GENERAL STATEMENT

From its foundation, Cornell University has offered special courses for students preparing for the study of medicine; first in the natural history course, and later also in a special two-year medical preparatory course. In 1898 the medical college was established in New York City with a four-year course. At the same time the work of the first two years was duplicated at the University in Ithaca, since many of the fundamental scientific subjects of which this part of the course mainly consists were already provided for in the long-established departments of botany, zoology, comparative anatomy, physics, chemistry, physiology, histology, embryology, and bacteriology. The courses in these departments were modified where necessary and additional courses were added so as to make the work at Ithaca equivalent to the first two years in New York City. In 1908, the work of the second year was discontinued at Ithaca.

OTHER COLLEGES OF THE UNIVERSITY. Among the facilities of the university of special value to the medical college may be mentioned the

museums of vertebrate and invertebrate zoology (including entomology and comparative anatomy), of agriculture, of botany, of geology, and of veterinary medicine. The University Library with its 742,723 volumes and pamphlets, and over 2,000 current periodicals and transactions, is as freely open to medical students as to other university students.

STIMSON HALL. This is a modern and thoroughly equipped laboratory building erected for the medical college at Ithaca in 1902. It was made possible through the generosity of the late Dean Sage of Albany and named at his desire Stimson Hall in recognition of the services rendered by Dr. Lewis A. Stimson toward the establishment of the medical college. The building was especially designed for teaching and research in anatomy, histology, embryology, and physiology.

In the cellar are sound-proof conditioned reflex rooms, the cold-

storage, embalming, cremating rooms, and storerooms.

In the basement are the ventilating and cold-storage machinery, a large lecture room, research rooms, and an advanced laboratory for histology, besides the lower part of the large amphitheatre. Here also

is the operating room for physiology.

On the first floor are the coat rooms for men and women, college office, library, reading room, faculty room, histology and embryology research laboratory, general laboratory for experimental physiology, demonstration and metabolism room for physiology, and the upper

part of the large amphitheatre.

On the second floor is the Department of Histology and Embryology with a large general laboratory, research laboratory, preparation rooms, and private laboratories for the instructors. Upon this floor also is the Department of Physiology, with a large general laboratory for biochemistry, research laboratories for biochemistry, a research laboratory for experimental physiology, an incubator room, repair shop and private laboratories for the instructors.

The third floor consists of the general and special dissecting rooms for gross anatomy and neurology, study rooms, dark room, radiology

room and amphitheatre, besides rooms for the instructors.

The attic is utilized for photography, macerating skeletons, and for storage.

The air in the building is constantly changed by forced ventilation.

The lighting is especially good in all the rooms.

In the court behind the building is a house for alcohol and inflammables and provision for experimental animals, including a small animal house. Additional animal houses and experimental laboratories are situated at some distance from the medical building on the Physiology Field Station.

THE VANCLEEF MEMORIAL LIBRARY. This library, endowed by Mr. Mynderse VanCleef in honor of his brother, Dr. Charles VanCleef, is situated in Stimson Hall and supplements the extensive facilities of the university library by a steadily growing collection of reference works and periodicals of importance for the work of instruction and research

conducted in Stimson Hall. The library room is lighted by indirect overhead light, and the reading desks are provided with daylite lamp fixtures.

Experimental Field Station. An important adjunct to the Department of Physiology is an Experimental Field Station which consists of nine acres situated in the open country about two miles from the medical college. In this fenced field a barn for the accommodation of large animals such as sheep and goats, and proper houses with runs for small animals have been provided. In such a station animals under observation in feeding and nutrition experiments, for example, may be kept under ideal conditions for long periods of time. A laboratory equipped for the study of conditioned reflexes has been constructed in which it is possible, due to the quiet environment, to provide an experimental room practically sound proof. This is essential for success in the investigation of conditioned reflexes. Communication between the station and the laboratory is maintained by a motor truck belonging to the department.

The Sarah Manning Sage Research Fund. As a recognition of the importance of the research side of university work, and as a timely and generous gift, there came in 1916 a bequest of \$50,000 by the will of Sarah Manning Sage, widow of Dean Sage, the donor of Stimson Hall. The income of this sum, or in the discretion of the university the principal also, shall be used to promote the advancement of medical science by the prosecution of research in the Cornell University Medical College at Ithaca, in connection with any and all subjects at any time embraced in the curriculum.

#### PLAN OF INSTRUCTION

#### ANATOMY

ABRAM T. KERR, B.S., M.D., Professor of Anatomy.

James W. Papez, A.B., M.D., Assistant Professor of Anatomy and Neurology.

ADRIAN F. REED, A.B., A.M., Instructor. Fred A. Mettler, A.B., M.S., Instructor. William H. Waller, A.B., Instructor.

The courses in anatomy are designed to provide a comprehensive

and detailed study of the structure of the human body.

The work in gross anatomy is mostly concentrated in the first term of the first year. The laboratory is open from eight to five on week days, except Saturday. Twenty-five hours a week are allowed for the required work in the first term and four hours a week in the second term. Students who have additional hours free may devote more time to the subject.

The work consists mainly of dissection followed by recitation on the part dissected. For this work there is an ample supply of dissecting material well embalmed and kept in cold storage ready for use. Each

student is required to do a clean and careful dissection of a lateral half of the body. The regional method of dissection is followed. The student is furnished a systematic laboratory outline so arranged where possible that the structures in each region can be studied together as a topographic, functional or surgical area. It is realized that no one method or point of view is sufficient or applicable to every region. The purpose throughout is to make the student find and identify every structure, to appreciate its functional significance, its relations and its peculiar characteristics, to assemble details into general concepts, to visualize and interpret every region and organ. The aim is to direct the student to work methodically, to observe carefully and to think clearly and independently. He is encouraged to make careful notes and as many drawings as time permits. Where feasible, he is taught to compare his findings on the cadaver with conditions in the living body.

An x-ray outfit and fluoroscope in the department makes it possible in many regions to compare the x-ray picture from the cadaver with the findings in the dissection. A complete disarticulated skeleton is loaned to each student so that the bones may be available for study when encountered in course of dissection. In addition the department is well equipped with models, cross sections, and special dissections for study and demonstration. For study of the finer structure of the organs hand lenses and several binocular dissecting microscopes are provided in the laboratory. A student library containing atlases and some of the more important anatomical monographs is in connection with the laboratory. Besides the usual regional recitation on the dissected part, demonstration conferences are held about three times a week with the class as a whole or with smaller groups. Occasional lectures are given on matters that cannot be made clear by dissection and demonstrations.

The work in the anatomy of the nervous system and sense organs is given during the second term. It consists mainly of laboratory work with frequent conferences and recitations. A topographic study and dissection of the organ or part precedes or accompanies its microscopic study. Special attention is given to the sense organs, nerves, nuclei, reflex connections, conduction tracts and cortical areas that enter into the formation of the more important functional systems. In connection with each organ or part, its development and comparative morphology is considered. For this work an ample supply of human brains, brains of lower mammals, Weigert sections, and other preparations is available.

The department is well equipped to provide facilities for those properly qualified to undertake advanced and research work. Students with special ability or training are permitted to do more than the required work. Where time permits they are encouraged to do advanced or research work.

### 1. Anatomy of the Head and Neck.

First term. Credit, 4 hours, 24 actual hours a week for 6 or more weeks. Professors Kerr and Papez, instructors and assistants. Laboratory work, dissection, and conferences.

#### 2. Anatomy of the Thoracic Walls and Viscera.

First term. Credit, 1 hour, 24 actual hours a week for 2 or more weeks. Professors Kerr and Papez, instructors and assistants. Laboratory work, dissection, and conferences.

### 3. Anatomy of the Abdominal and Pelvic Walls and Viscera.

First term. Credit, 4 hours, 24 actual hours a week for 6 or more weeks. Professors Kerr and Papez, instructors and assistants. Laboratory work, dissection, and conferences.

### 5. The Nervous System. Anatomy, Histology, and Systematization.

Second term. Credit, 3 hours, Assistant Professor Papez and instructors. Eight hours a week laboratory with laboratory demonstrations, conferences and recitations. Dissection of the spinal cord and brain. Microscopic structure and development of the nervous system.

### 6. Anatomy of the Living Body.

First term. Credit, 2 hours, 3 actual hours a week. Professor Kerr. Interpretation of dissecting room material by means of the living body, frozen sections, and special preparations. A review of the work of Courses 1, 2, and 3.

### 7. Anatomy of the Upper Extremity.

First term. Credit, 2 hours, 24 hours a week for 2 or more weeks. Professors Kerr and Papez, instructors and assistants. Laboratory work, dissection, and conferences.

### 8. Anatomy of the Lower Extremity.

Second term. Credit, 2 hours, 4 hours a week for 16 weeks. Professors Kerr and Papez, instructors and assistants. Laboratory work, dissection, and conferences.

### 9. Topographical Anatomy.

First and second terms. Credit, 2 to 5 hours. Elective. Prerequisite, anatomy courses 1, 2, 3, 7, or 8. The detailed dissection and study of any region. Professor Kerr.

# 250. Research in Anatomy and Neurology.

First and second terms. Professors Kerr and Papez. Advanced and research work in the laboratories. Open only to those who have taken the necessary preliminary courses, and are properly qualified.

### HISTOLOGY AND EMBRYOLOGY

BENJAMIN F. KINGSBURY, PH.D., M.D., Professor.

HOWARD B. ADELMANN, A.M., PH.D., Assistant Professor.

THEODORE SNOOK, B.S., Instructor.

RUTH McMILLAN HUNTER, A.M., Assistant.

ANDREW J. RAMSAY, A.B., Instructor.

As indicated by the following courses, this department offers elementary and advanced instruction in the theory and use of the micro-

scope and its accessories in histology and embryology and, also,

opportunities for research in all of these subjects.

The material equipment consists of a good supply of modern microscopes. Camera-lucidas, polariscopes, micro-spectroscopes, photomicrographic cameras, microtomes and other special apparatus such as dark-field illuminators are available in sufficient numbers to give each student opportunity for personally learning to use and apply them to any special study in which they may be needed. Two projection microscopes are available for class demonstrations and for making the drawings used in reconstruction.

The rooms for the use of the department are on the second floor of Stimson Hall. They are well lighted. They consist of a large general laboratory, an advanced laboratory, a preparation room, department office and five private laboratories for the instructing staff, where special demonstrations of difficult subjects are given to small groups of

students.

The collection of material and microscopic series of human embryology, contributed mainly by graduates of the college, is steadily growing. Every encouragement is given for the fullest utilization of

the opportunities afforded by the department.

The work of the department consists of practical laboratory work, supplemented by lectures, conferences, and demonstrations. The work required of students of medicine is given in Course 10. For those who have already had elsewhere satisfactory work in histology, elective work may be taken in Courses 107 and 108. Courses open to students in the College of Arts and Sciences and Veterinary Medicine are described in the announcements of these colleges.

# COURSES REQUIRED OF STUDENTS OF MEDICINE

10. Histology.

First term. Credit, 8 hours. Professor Kingsbury, Assistant Professor Adelmann and assistants. Required of first-year students of medicine. Four laboratory periods and four lectures each week. The work includes (a) The fundamentals of human development; (b) The histology of the tissues and organs (except the nervous system); (c) The main facts of histogenesis and the development of the organs (except the nervous system). It is highly advantageous that the course be preceded by a course in embryology (see Courses of Instruction of the College of Arts and Sciences, Course 104).

#### ADVANCED AND ELECTIVE COURSES

107. Advanced Work in Histology and Embryology.

First and second terms. Professor Kingsbury and Assistant Professor Adelmann. Laboratory work, eight or more actual hours a week, with Seminary (Course 108).

This course is designed for those preparing theses for baccalaureate or advanced degrees, and for those wishing to undertake special investigations in histology and embryology.

Course 107 is open to those who have had Course 10, or its equivalent. A good reading knowledge of French and German is indispensable for the most successful work in this course. It is suggested that those who intend to take this course confer with the head of the department as early as possible, so that the work may be planned to the best advantage.

108. Seminary.

First and second terms. One hour each week at an hour to be arranged. For the discussion of current literature and the presentation of original work by the members of the department staff and those doing advanced work in the department. It may be taken in connection with Course 107.

#### PHYSIOLOGY AND BIOCHEMISTRY

James B. Sumner, A.M., Ph.D., Professor of Biochemistry. Howard S. Liddell, A.M., Ph.D., Professor of Physiology. Joseph A. Dye, A.B., Ph.D., Assistant Professor of Physiology. George H. Maughan, A.M., Ph.D., Instructor in Physiology. David B. Hand, A.B., Ph.D., Instructor in Biochemistry. Stacey F. Howell, A.B., M.S., Instructor in Biochemistry.

#### PHYSIOLOGY

This subject is taught in the second term of the first year of the medical curriculum. It is the aim of the department to give the students a thorough training in the fundamentals of the science of physiology and an effort is made to strike the proper balance between the study of theoretical principles in the lecture room and the practical application of these in the laboratory.

Nine hours a week are devoted to practical exercises, special attention being given to experimental methods which are likely to be of

importance in the study of clinical medicine.

In the laboratory, from year to year, less and less time is taken up with frog physiology and more and more time devoted to a practical study of mammalian functions. This is made possible by the fact that the department now possesses six large Brodie type kymographs of recent pattern for the exclusive use of medical students.

The following courses are offered:

31. Physiology of Muscle and Nerve; Central and Automatic Nervous Systems; Special Senses.

Second term. Credit, 4 hours. Professor Liddell and assistants. Four lectures or recitations and three laboratory periods weekly for eight weeks.

34. Physiology of Digestion and Secretion; Absorption; Excretion; Heat Production and Its Regulation; and Functions of the Endocrine Glands.

Second term. Credit, 4 hours. Assistant Professor Dye, Instructor Maughan and assistant. Four lectures or recitations and three laboratory periods weekly for eight weeks, supplemented by demonstrations, conferences and written re-

views. In the Laboratory, the students will gain practical experience by making animal preparations, demonstrating and studying the physiological mechanisms of the mammalian body.

### 308. Advanced Work and Research in Physiology.

First and second terms. Credit, 2 or more hours. Assistant Professor Dye. Prerequisite or parallel, courses 31 and 34 or their equivalents. This course is designed for undergraduate students who are especially interested in physiological problems and wish to undertake special investigations in this field in preparation for further work toward advanced degrees.

### 310. Seminary in Physiology.

Second term. Credit, 1 hour. For graduate students and others properly qualified. Hour to be arranged. Members of the staff. Reports on recent advances in physiology.

#### BIOCHEMISTRY

In this section the student is taught the chemistry of the tissues, fluids, secretions, and excretions of the human body; the composition of food-stuffs, and the phenomena of their digestion, absorption, and assimilation; the rôle of enzymes in the animal economy; the principles of nutrition; and the leading facts of general and special metabolism. Groups of organic compounds of special biological importance will be discussed emphasizing particularly the carbohydrates, purins, amino acids, and fats. The fundamental properties of electrolytes and colloids and the phenomena of osmosis and dialysis will be considered in lecture room and laboratory. Instruction is given in the use of analytical methods for the examination of biological products, both normal and pathological. Those methods are principally considered which have found an application in scientific medicine, and special attention is devoted to the quantitative analysis of the gastric contents, blood, and urine. Each student completes the course by performing a metabolism experiment upon himself.

The bulk of the instruction is given in the laboratory. As occasion arises, the student's individual work there is supplemented by experimental demonstrations; while by means of lectures and recitations it is sought to co-ordinate the whole, and to expound the theoretical aspects of the subject.

The following courses are offered:

### 15. General Biochemistry.

Second term. Credit, 9 hours. Five lectures or recitations and four three-hour laboratory periods weekly; supplemented by demonstrations, conferences and written reviews. Professor Sumner, Instructors Hand and Howell. Required of first-year students of medicine.

### 17. Special Chapters in Biochemistry.

First term. Credit, 1 hour. Professor Sumner. One lecture weekly on some selected province of biological chemistry. Hour to be arranged. This is an elective course for advanced students or graduates.

320. Advanced and Research Work in Biochemistry.

First and second terms. Professor Sumner. The laboratory is open daily to all qualified persons for advanced instruction or the prosecution of research. Courses are arranged to suit the training and requirements of the individual student.

#### SUMMARIZED STATEMENT

In this schedule the counts or university hours are given on the following basis: One recitation or lecture weekly for one term or half year gives a credit of one; for laboratory work it requires two and one-half to three actual hours weekly for a term or half year to secure a credit of one.

#### REQUIRED COURSES

#### FIRST TERM

1. Anatomy of the Head and Neck.

Credit, 4 hours, 24 actual hours a week for 6 weeks. Professors Kerr and Papez, instructors and assistants. Laboratory work, dissection, and conferences.

2. Anatomy of the Thoracic Walls and Viscera.

Credit, 1 hour, 24 actual hours a week for two weeks. Professors Kerrand Papez, instructors and assistants. Laboratory work, dissection, and conferences.

3. Anatomy of the Abdominal and Pelvic Walls and Viscera.

Credit, 4 hours, 24 actual hours a week for 6 weeks. Professors Kerr and Papez, instructors and assistants. Laboratory work, dissection, and conferences.

6. Anatomy of the Living Body.

Credit, 2 hours, 3 actual hours a week. Professor Kerr.

7. Anatomy of the Upper Extremity.

Credit, 2 hours, 24 actual hours a week for 2 or more weeks. Professors Kerr and Papez, and assistants.

10. Histology.

Credit, 8 hours. Professors Kingsbury, Adelmann, instructors and assistant. Four laboratory periods and four lectures each week.

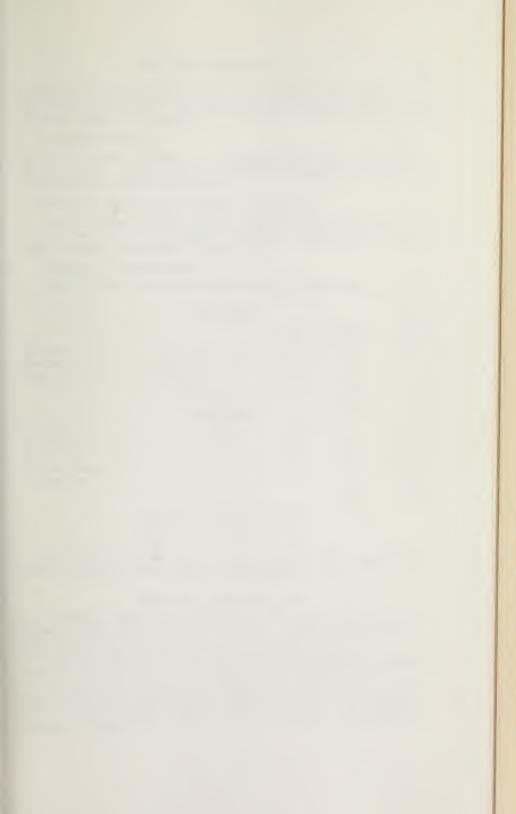
#### SECOND TERM

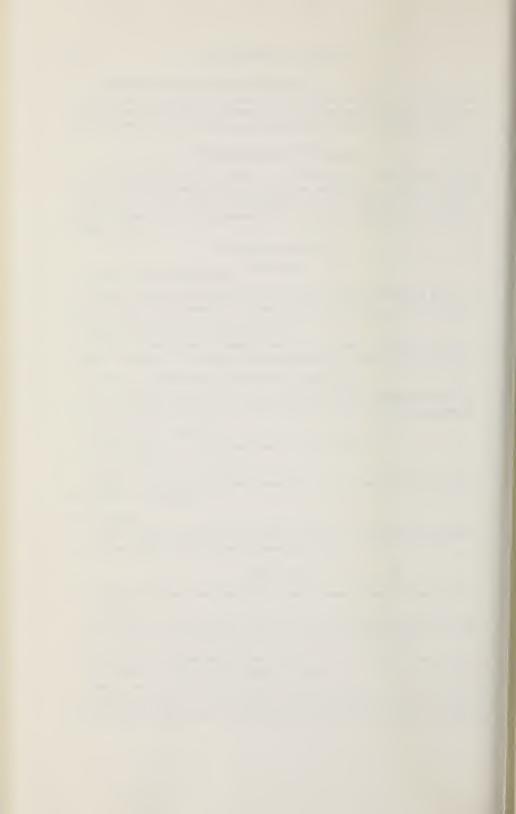
31. Physiology of Muscle and Nerve; Central and Automatic Nervous Systems; Special Senses.

Second term. Credit, 4 hours. Professor Liddell and assistants. Four lectures or recitations and three laboratory periods, weekly for eight weeks.

34. Physiology of Digestion and Secretion; Absorption; Excretion; Heat Production and Its Regulation; Functions of the Endocrine Glands.

Second term. Credit, 4 hours. Four lectures or recitations and three laboratory periods weekly for eight weeks, supplemented by demonstrations, conferences and written reviews. In the laboratory, the students will gain practical





experience by making animal preparations, demonstrating and studying the physiological mechanisms of the mammalian body. Assistant Professor Dye, Instructor Maughan and assistants.

#### 15. General Biochemistry.

Credit, 9 hours. Five lectures or recitations and four three-hour laboratory periods weekly, supplemented by demonstrations, conferences, and written reviews. Professor Sumner and instructors.

### 5. The Nervous System. Anatomy, Histology, and Development.

Credit, 3 hours. Assistant Professor Papez and instructors. Eight actual hours a week. Dissection of the spinal cord and brain. Microscopic structure of the nervous system and organs of special sense.

#### 8. Anatomy of the Lower Extremity.

Credit, 2 hours, 4 actual hours a week. Professors Kerr and Papez and assistants.

First Term			Actual
	No. of Course	University Hours	Hours Weekly
Anatomy	1,2,3,7	II	24
Anatomy	6	2	3
Histology	10	8	16
		2.1	43
Second Term			
Anatomy	8	2	4
Physiology	31	4	13
Physiology	34	4 ∫	- >
Nervous System	5	3	8
Biochemistry	15	9	17
		2.2	42

#### GENERAL INFORMATION

### REQUIREMENTS FOR ADMISSION

The requirements for admission are identical with those of the Medical College at New York City (see page 46).

#### RESIDENCE AND REGISTRATION

The college year is nine months long, extending from the last of September till about the middle of June, and is divided into two nearly equal terms. (For exact dates, see calendar on page 90).

No credit is given for work done in absentia. For leave of absence

during the session, application should be made to the Secretary.

At the beginning of the term students must register with the University Registrar, in Morrill Hall. After registration with the University Registrar, they must register with the Secretary of the Medical College, in Stimson Hall.

#### Examinations and Advancement

Students are advanced in course from one year to the next on passing examinations on the work of that year. The work of each year is considered final of itself. There is no unnecessary repetition of subjects taught from year to year. According to the usage of the other colleges, the university student found to be markedly deficient will be dropped from the college at the end of the term. In the case of a student so dropped, an application for re-admission will not be considered until

after the expiration of one term.

Upon the completion of the year in Ithaca, a transcript of the record of each student, together with a statement that such student is recommended for admission to the second-year class, is transmitted by the faculty at Ithaca to the faculty of the medical college in New York City. As a student is not advanced from one year to another in the New York division until all the work of the year is completed, a student from Ithaca cannot enter the second-year class in New York until the entire schedule of the first year has been successfully completed. For removing any conditions, examinations are held at the beginning of the fall term, both in Ithaca and in New York City. The student is at liberty to take these examinations in Ithaca or in New York City. The examination on a subject in either place is final for that year. That is, the student will not be permitted to try an examination on a subject in Ithaca, and take advantage of the later date for the examination in New York to have a second examination on the same subject in the same autumn.

#### CHARGES FOR INSTRUCTION

#### FIRST YEAR

Matriculation							\$ 10
Tuition		٠	•		•		500
							\$510

Willard Straight Hall and Infirmary fees are paid by medical students as well as by all other students.

All tuition and other fees may be changed or increased by the Trustees to take effect at any time without previous notice.

Applications for registration in the Medical College should be made by

February 1, and a deposit of \$100 is required if accepted.

An application received after February 1 may be accepted if, in the judgment of the Faculty, there is adequate provision for the student's instruction.

The advance of \$100 on account of tuition which is required of each applicant on acceptance for admission is payable normally within two weeks of notification, and is not returnable.

#### RESIDENTIAL HALLS

The University has eight residential halls for men students situated on the campus and furnishing accommodations for about 600 students. For particulars address The Manager of Residential Halls, Morrill Hall, Ithaca, N. Y. There are, also, many private boarding and rooming houses near the campus. In these the cost of board and furnished room, with heat and light, varies from \$10 to \$15 a week. By the formation of clubs, students are sometimes able to reduce their expenses for room and board. Cafeterias are maintained by the university in Willard Straight Hall and in the Home Economics Building, where meals can be obtained at reasonable prices.

Before engaging rooms, students should carefully examine sanitary conditions and should particularly insist on satisfactory and sufficient fire escapes. The university publishes and distributes a list of approved rooming houses. This list is ready for distribution August 15. New students are advised to come to Ithaca a few days in advance of the beginning of the university duties in order that they may have ample time to secure room and board before the opening of the academic year. The Freshman Advisory Committee offers its assistance to new

students in the selection of rooming and boarding houses.

The residential halls for women students are Sage College, Prudence Risley Hall and Balch Hall. In these buildings, which are exclusively for women students, the total cost of board, laundry, and rent of furnished rooms, with heat and light is \$560 a year. The halls are heated by steam, and lighted by electricity. The Dean of Women has jurisdiction over all women students in the university, and women students are not permitted to board and lodge outside of the halls for women except in houses approved by her and subject to her direction. Prospective women students should write to the Dean of Women for information concerning any matters in which they may need assistance. Dormitory facilities for women are inadequate, and prospective students desiring such accommodations are urged to make early application. Inquiries in regard to board and rooms in the women's halls should be addressed to The Manager of Residential Halls, Morrill Hall, Ithaca, N. Y.

# CORNELL UNIVERSITY MEDICAL COLLEGE ITHACA, N. Y.

# FIRST YEAR—Session of 1932-1933—FIRST TERM

	8	9	10	11	11:30	I	2	3
Monday	Anatomy Laboratory	Histology Laboratory	Histology Anatomy					
Tuesday				Anatomy				
Wednes- day	Anatomy Laboratory	Histology Laboratory		Histology	Anatomy			
Thursday			Anatomy				Anatomy	
Friday	Anatomy Laboratory	Histology Laboratory					Anatomy	
Saturday	Histology Laboratory		Hist	ology				

# FIRST YEAR—SESSION OF 1932-1933—SECOND TERM

	8	9	10	11	11:30	I	2	3	
Monday		ANAT	гому			Nervous System			
Tucsday	Biochem- istry Laboratory		Physic	Physiology Physiology					
Wednes- day	Physiology Laboratory	Biochem- istry Laboratory		Biochemistr	у	Nervous System			
Thursday	Physiology Laboratory	Biochem- istry Laboratory		Physiology	,		Biochemistr	у	
Friday	Physiology Laboratory	Biochem- istry Laboratory		Biochemistr	У	1	Vervous Syst	em	
Saturday	Physiology Laboratory	Biochem- istry Laboratory		Biochemistr	у				

#### GRADUATE WORK AT ITHACA

#### ADMISSION

The Graduate School has exclusive control of all graduate work carried on in the university. Graduates of the following colleges of Cornell University, namely, the College of Arts and Sciences, the College of Architecture, the College of Engineering, the Medical College, the New York State College of Agriculture, the New York State College of Home Economics, the Law School and the New York State Veterinary College, and also graduates of other institutions in which the requirements for the first degree are substantially equivalent, are eligible for admission to the Graduate School. In other cases studies pursued after graduation, and experience gained by professional work or otherwise, are taken into consideration in deciding whether the candidate's preparation as a whole is such as to justify his admission to the Graduate School. Graduates of colleges other than those of Cornell University may be admitted to the Graduate School, but not to candidacy for an advanced degree, if their training is regarded as less than one year short of that required for the first degree at Cornell University.

In order to be admitted to the Graduate School, a student must furnish evidence that he has already received a first degree, by presenting either a diploma or a statement from some official source. The simplest procedure will ordinarily be to submit an official statement from the registrar or dean that the degree has been conferred. In the case of graduates of Cornell University this is not necessary, since the

records are conveniently accessible.

To avoid delays at the beginning of the academic year, those who desire to enter the Graduate School are advised to make application for admission, either in person or by letter, in the preceding spring or summer. Correspondence should be addressed to the Dean of the

Graduate School, Cornell University, Ithaca, New York.

For details in regard to the selection of major and minor subjects, special committees in charge of the work of each candidate for an advanced degree, fees, time required, thesis, and special conditions to be fulfilled by each candidate for an advanced degree, reference should be made to the Announcement of the Graduate School.

#### FACILITIES

The facilities of the departments of anatomy, histology and embryology, physiology and biochemistry, have been outlined under the description of each department. These are equally available for the use of the graduate students and for medical students.

#### FELLOWSHIPS AND GRADUATE SCHOLARSHIPS

Among the twenty-four fellowships and eighteen scholarships offered annually to students in the Graduate School, the following are of particular interest to students continuing work in biological sciences:

THE SCHUYLER FELLOWSHIP IN ANIMAL BIOLOGY (annual value of \$400 and free tuition in the Graduate School).

THE GRADUATE SCHOLARSHIP IN ANIMAL BIOLOGY (annual value of \$200 and free tuition in the Graduate School).

#### THE COMBINED A.B. AND M.D. DEGREES

The medical college advises students to complete, whenever feasible, the full four-year A.B. course before applying for admission to this college. It is possible, however, to be admitted to the medical college under Section II of the entrance requirements. This is to provide for those students who, by specially directed or especially proficient work, accomplish the essential requirements for the Arts degree during three years of college residence. No students are admitted under this classification unless their college faculty will permit them to substitute the first year in the Cornell University Medical College for the fourth year of their college course, and no student is admitted to the second year in the Medical College without the bachelor's degree obtained after at least three years of undergraduate college work.

The first year in the medical course, which may be taken in place of the fourth year of the arts work, may be pursued either in Ithaca or in New York City. If all the work of this year is completed satisfactorily the student receives the degree of A.B. or its equivalent, and is permitted to take the last three years of the medical work. These are taken entirely in the Cornell University Medical College in New York City.

For the convenience of college students preparing for medicine, a schedule of the courses in the College of Arts and Sciences of Cornell University, in physics, chemistry, and biology, which will satisfy the requirements for admission to the medical college, is given below. If a student is taking four years in a liberal arts college, these courses may be taken later in the course than indicated. It is important that the order given in the outline should be followed, ascertain of these courses are prerequisite for other prescribed courses. In addition to the courses required for admission to the medical college, the student will take all courses in English, foreign language, philosophy and psychology, history, mathematics, economics and government which are prescribed by the College of Arts and Sciences. It is advised that all these underclass requirements be completed before the beginning of the junior year.

The courses which the medical college requires of its applicants for admission, and planned for the student who expects to finish his arts courses in three years are thus outlined:

#### FIRST YEAR IN ARTS

			2nd Term
	Course	Hours	Hours
	$N_{o}$ .	Credit	Credit
Animal Biology (Introductory Zoology)	I	3	3
Chemistry (Introductory Inorganic)	IOI		
Chemistry (Introductory Inorganic)	105		3
Second Year in Arts			
Animal Biology (Comparative Anatomy and mor-			
phology of vertebrates)	II	3	3
Chemistry (Introductory Qualitative Analysis)	210	3	
Chemistry (Introductory Quantitative Analysis)	225		3
Physics (Introductory Experimental)	3&4	3	3
THIRD YEAR IN ARTS			
Chemistry (Elementary Organic)	375	6	
Animal Biology (Histology and Histogenesis of the			
tissues	IOI	4	
Animal Biology (Vertebrate Embryology)	104		5
Physics (Introductory Physical Experiments)	55	3	

It is desirable that included in, or in addition to the modern foreign language required for admission to the Medical College, students should obtain a reading knowledge of French and German.

Some of the additional courses suggested for election according to

the needs or desires of each individual student are:

In the group of Animal Biology, courses: 10—Cytology; 14—Genetics; 102—Histology and development of the organs; 105—Histology and histological methods; 221—Structure of the human body; 222—Anatomical methods; 303—Elementary human physiology; in Economics, in addition to the elementary course, courses 50, 51 and 54—Introduction to social science. Also courses in Psychology and additional courses in English and Public Speaking where these latter are needed.

# STUDENTS, 1932-1933

#### CANDIDATES FOR THE DEGREE OF DOCTOR OF MEDICINE

#### FOURTH YEAR

John Lamont Alley, A.B., 1929, Princeton University Charles Woodruff Beattie, A.B., 1929, Cornell University Alberic Hyacinthe Bellerose, Jr., A.B., 1929, Dartmouth College Donald Weeks Bogart, A.B., 1927, Dartmouth College Nils William Bolduan, A.B., 1929, Columbia University William Jerome Bruckner, B.S., 1929, New York University Frank Albertus Moore Bryant, A.B., 1930, Cornell University Phillips Kay Champion, A.B., 1930, Cornell University Willard James Chapin, A.B., 1930, Cornell University Virgil Alfred Christenson, A.B., 1930, University of Utah Mario Salvatore Cioffari, A.B., 1928, Cornell University August Reynolds Crane, A.B., 1929, Hamilton College John Haag Eckel, B.S., 1929, New York University Elinor Edgar, A.B., 1918, Smith College Leon Herbert Ehrlich, B.S., 1929, College of the City of New York Francis Xavier Fagan, Ph.B., 1929, Brown University Katherine Ellen Falconer, A.B., 1929, Wellesley College Wayne Wetmore Fox, A.B., 1929, Harvard University Francis Gillen Genin, B.S., 1930, Pennsylvania State College Walter Henry Hagen, B.S., 1929, Rutgers University Edward Aloies Hagmann, A.B., 1929, Pomona College Thomas Gray Harvey, B.S., 1930, University of Maine Harold Gerard Higgins, A.B., 1930, Cornell University Robert John Hochland, A.B., 1929, University of Michigan Willard LeRoy Hogeboom, A.B., 1930, Cornell University Robert Imrie Hood, A.B., 1930, Cornell University Reeve Scott Howland, A.B., 1930, Cornell University

Betty Huse, A.B., 1929, University of Wisconsin Eleanor Randall Ives, A.B., 1926, University of Southern California

Margaret Holden Jones, A.B., 1925, Radcliffe College,

A.M., 1927, Vassar College
Gerald Klatskin, A.B., 1929, Cornell University
Harold Horn Lowenstein, A.B., 1930, Cornell University
Ruth Isabel Lyman, A.B., 1930, Cornell University
John Gurnsey Malia, A.B., 1930, University of Utah
Norman Margolius, A.B., 1929, Cornell University
Virgil Andrew Mason, A.B., 1928, Wabash College
Paul Theodore McAlpine, A.B., 1930, Colgate University
Isabel McConagha, A.B., 1927, Westminster College
George John McDonnell, B.S., 1929, University of Notre Dame
Frederick Hamilton Merrill, A.B., 1926, Princeton University
George Burroughs Mider, A.B., 1930, Cornell University
William Jameson Neidlinger, B.S., 1929, Rutgers University
Colgate Bennett Phillips, A.B., 1929, Williams College
George Benjamin Putman, B.S., 1929, Harvard University
Charles Ely Rieser, B.S., 1931, University of New York
David John Roberts, B.S., 1931, University of Wisconsin
Elise Genevieve Schlosser, A.B., 1929, Barnard College
Rudolph Charles Schretzmann, A.B., 1929, Cornell University

New York, N. Y. Binghamton, N. Y. Rutland, Vt. Corry, Pa. New York, N. Y. New York, N. Y. Mt. Vernon, N. Y. Philadelphia, Pa. Leicester, N. Y. Salt Lake City, Utah New Rochelle, N. Y. New York, N. Y. Mt. Vernon, N. Y. New York, N. Y. New York, N. Y. Waterbury, Conn. Jamestown, N. Y. Fulton, N. Y. Jeannette, Pa. Maplewood, N. J. Redlands, Calif. Fort Fairfield, Maine New York, N. Y. New York, N. Y. Binghamton, N. Y. Corning, N. Y. Elmira, N. Y. New York, N. Y. Alhambra, Calif. Portland, Maine

New York, N. Y.
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New York, N. Y.
Middletown, N. Y.
Salt Lake City, Utah
Catskill, N. Y.
Rossville, Ind.
New York, N. Y.
New Wilmington, Pa.
Keansburg, N. J.
New York, N. Y.
Canisteo, N. Y.
Plainfield, N. J.
New York, N. Y.
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Cambria, Wis
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Rutherford, N. J.

New Philadelphia, Ohio Barre, Vt. Fond du Lac, Wis. Lexington, Ky. Blakely, Ga.

Beryl Whittier Scully, A.B., 1929, Earlham College Horace Irwin Slater, Ph.B., 1929, Brown University Wallace Trezer Smith, A.B., 1930, Cornell University William Bliss Stocking, A.B., 1930, Cornell University Emily Eliot Sturgis, A.B., 1929, Wellesley College William John Sullivan, A.B., 1930, Cornell University Harry Dan Vickers, A.B., 1929, Colgate University Eleanor Webb, A.B., 1929, Wellesley College Herman Irving Wortis, A.B., 1929, New York University William Otto Wuester, Jr., A.B., 1929, New York University Rome, N. Y.
Port Chester, N. Y.
Rockaway, N. Y.
Ithaca, N. Y. Chevy Chase, Md.
Auburn, N. Y.
Little Falls, N. Y.
New York, N. Y.
Brooklyn, N. Y. Pompton Lakes, N. J.

#### THIRD YEAR

Elizabeth Clarice Adams, A.B., 1926, Wellesley College,

Harry Maurice Murphy, A.B., 1931, Cornell University Roger Burdette Nelson, A.B., 1930, Cornell University

Henry Thomas Sherman, B.S., 1930, Emory University

Frederick Walter Rea, A.B., 1931, Cornell University
Ernest Venner Reynolds, A.B., 1930, Williams College
Edward Pier Roemer, A.B., 1930, University of Wisconsin
Augustine Thornton Scott, A.B., 1930, Princeton University

M.S., 1930, New York University Willsboro, N. Y. Frank Marvin Adams, B.S., 1932, University of North Carolina George Newton Ballentine, B.S., 1930, Bucknell University Dillon, S. C. Lewisburg, Pa. Virginia Barrett, A.B., 1931, Cornell University Sayre, Pa. Theodore Charles Bauerlein, A.B., 1928, St. Mary's College Michael Steven Brody, B.S., 1928, New York University Topeka, Kans. New Brunswick, N. J. Floral Park, N. Y. Frederick Robert Brown, A.B., 1931, Cornell University Veronica Cecelia Brown, A.B., 1925, Cornell University New York, N. Y. New York, N. Y. Peter Louis Carnesale, A.B., 1930, Cornell University Robert LaT. Cavenaugh, A.B., 1930, Cornell University Berkeley, Calif. Walter Irving Chapman, A.B., 1930, Johns Hopkins University Westwood, N. J. Charles Gardner Child, 3rd, A.B., 1930, Yale University New York, N. Y. Joseph Arvine Coleman, A.B., 1931, Cornell University New York, N. Y. Nathaniel Cooper, B.S., 1929, College of the City of New York New York, N. Y. William Thomas Doran, Jr., A.B., 1930, Dartmouth College New York, N. Y. William Harrison Eberle, A.B., 1931, Cornell University Ashtabula, Ohio William Epstein, B.S., 1930, College of the City of New York New York, N. Y. William McDaniel Ewing, A.B., 1931, Vanderbilt University Bowling Green, Ky. Kenneth Tyne Fairfax, A.B., 1931, Cornell University Geneva, N. Y. Gladys Jeannette Fashena, A.B., 1929, Hunter College, New York, N. Y. New York, N. Y. A.M., 1930, Columbia University Dorothy Loomis Frame, A.B., 1930, Vassar College Nathan Baruch Friedman, A.B., 1930, Harvard University New York, N. Y. Otto S. Hensle, B.S., 1930, Washington and Jefferson College Rutherford, N. J. John Winslow Hirshfeld, A.B., 1930, Cornell University Detroit, Mich. Marion Hotopp, A.B., 1921, Mount Holyoke College New York, N. Y. New York, N. Y. Heloise Beekman Hough, A.B., 1929, Barnard College Joseph John Kanich, A.B., 1931, Cornell University Earl Parsons Lasher, A.B., 1931, Cornell University Coaldale, Pa. Yonkers, N. Y. Leon Samuel Loizeaux, Jr., 1931, Cornell University New York, N. Y. William Randolph Lovelace, A.B., 1930, Washington University Albu Donald Cameron Malcolm, B.S., 1930, Washington and Jefferson College Albuquerque, N. M. Indiana, Pa. Thomas Poultney Ellicott Mathews, A.B., 1930, Columbia University Yonkers, N. Y. W. Roxbury, Mass. Helen Maria McKee, B.S., 1927, Connecticut College West Somerville, Mass.
gy New York, N. Y.
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Albany, N. Y.
Olean, N. Y.
Buffalo, N. Y.
Jamestown, Mass. Emory Allan McLean, A.B., 1931, Dartmouth College John Milton McLean, M.E., 1930, Stevens Institute of Technology Adolph Meltzer, B.S., 1930, College of the City of New York James Alexander Moore, A.B., 1930, Cornell University Robert Emmet Mountain, A.B., 1931, Cornell University

Vincent Joseph Simmon, A.B., 1929, Amherst College
Wilson Fitch Smith, Jr., Ph.B., 1930, Yale University
Hårry Strongin, A.B., 1931, Cornell University
Howard Taylor Stuch, A.B., 1929, University of Michigan
William Albert Thornhill, A.B., 1930, West Virginia University
Henry Bernard Tillman, Ph.B., 1930, Brown University
Harry Goodwin Tounge, Jr., B.S., 1930, University of New Hampshire
Karl Lane Van Horn, A.B., 1927, West Virginia University
William Rankin Ward, Jr., A.B., 1930, Colgate University
LeRoy Hamilton Wardner, A.B., 1931, Cornell University
William Patrick Whalen, A.B., 1930, Fordham University
Edward Thomas Yorke, B.S., 1930, University of Notre Dame New York, N. Y. New York, N. Y. New York, N. Y. Allegan, Mich. Charleston, W. Va. Springfield, Mass. shire Malden, Mass. Morgantown, W. Va. Newark, N. J. Saranac Lake, N. Y. New York, N. Y. Edward Thomas Yorke, B.S., 1930, University of Notre Dame Carteret, N. J.

#### SECOND YEAR

Houston, Texas Brooklyn, N. Y. New York, N. Y. Weldon Thomas Baker, A.B., 1932, Cornell University Folke Becker, A.B., 1932, Cornell University Perry Sanborn Boynton, Jr., A.B., 1931, Dartmouth College Cornelius Persen Brink, B.S., 1931, Middlebury College Walter Fuchsius Bugden, B.S., 1931, Tufts College John Heckman Burke, Jr., A.B., 1932, Cornell University Katherine Butler, A.B., 1920, Mt. Holyoke College, A.M., 1926, Elizabeth, N. J. New Rochelle, N. Y. Elmira, N. Y. Columbia University Providence, R. I. John Cannon, A.B., 1931, Williams College New York, N. Y. Henry Ashley Carr, A.B., 1931, Princeton University Elizabeth Panet Chittenden, A.B., 1931, Vassar College Daniel Innes Dann, B.S., 1931, Bucknell University Arthur Gerard DeVoe, A.B., 1931, Yale University Philadelphia, Pa. Greenwich, Conn. Canton, Pa. New York, N. Y. Summit, N. J. New York, N. Y. Phyllis Amanda Dooley, A.B., 1932, Cornell University Marshall Fletcher Driggs, Ph.B., 1931, Yale University Ralph Howard Edson, B.S., 1931, Princeton University John Arthur Evans, B.S., 1931, New York University George Granville Flenner, A.B., 1932, Cornell University Washington, D. C. New York, N. Y. Hamilton, Ohio Floyd Fortuin, A.B., 1932, Columbia University Carl Frederick Freese, B. S., 1929, Union College Paterson, N. J. Baldwin, N. Y. Sharon, Conn. Constance Starr Gilbert, A.B., 1926, Wellesley College Schenectady, N. Y. New York, N. Y. David Gold, A.B., 1931, Union College William Henry Hanna, Jr., A.B., 1930, Princeton University Stephen Howat Harris, Ph.B., 1930, Brown University Valley Falls, R. I. Plainfield, N. J. Robert Williams Hedges, B.S., 1931, Princeton University Harry Heim Henderson, B.S., 1931, Washington and Jefferson College Wheeling, W. Va. Henry Miles Imboden, B.S., 1931, Franklin and Marshall College Mt. Vernon, N. Y. Charles Edward Jacobson, B.S., 1931, Trinity College Perth Amboy, N. J. Edward Francis Keefe, Jr., B.S., 1931, College of the City of New York, N. Y. Saul Rosenthal Kelson, A.B., 1930, A.M., 1931, Cornell University Glen Edwin Kingsley, A.B., 1931, Cornell University Syracuse, N. Y. Lorain, Ohio Alexander Duncan Langmuir, A.B., 1931, Harvard University Englewood, N. J. Edwin Vance Lawry, A.B., 1931, Stanford University Palo Alto, Calif. John Goeller Leuthner, A.B., 1931, Dartmouth College New York, N. Y. Edward Augustus Loeb, B.S., 1931, Rutgers University Atlantic City, N. J. Thomas Lowry, A.B., 1931, Princeton University Minneapolis, Minn. William Boyd Mathews, A.B., 1931, Pomona College Upland, Cal. William Dennis McCarthy, Ph.B., 1931, Brown University Lonsdale, R. I. William Theophil Medl, A.B., 1932, Cornell University Robert Edward Merritt, B.S., 1931, University of Nevada New York, N. Y. San Francisco, Cal. Mary Compton Moss, A.B., 1929, Barnard College Babylon, N. Y. Frederick Scoville Nicoll, B.S., 1931, Washington & Jefferson College Brooklyn, N. Y. Hailes LaGue Palmer, Ph.B., 1931, Brown University Boris Petroff, A.B., 1931, Cornell University Albert Carroll Redmond, B.S., 1931, Hamilton College Providence, R. I. Upper Montclair, N. J. New York, N. Y.

Richard Reeser, Jr., A.B., 1931, Cornell University Columbia, Pa. Lucien Griggs Rice, Jr., A.B., 1931, University of New Mexico Albuquerque, N. M. William Raymond Richards, Jr., A.B., 1931, Cornell University Herbert Joseph Riekert, A.B., 1932, Cornell University Medford, Mass. New York, N. Y. Samuel Henry Roberts, B.S., 1931, College of the City of New York Frederick Joseph Roemer, A.B., 1932, Cornell University George Goble Sale, B.S., 1931, Bucknell University George Benton Sanders, A.B., 1932, Cornell University New York, N. Y. Cleveland, Ohio Lewisburg, Pa. Louisville, Ky. Fishkill, N. Ý. Grant Sanger, B.S., 1931, Princeton University William Albert Sibrans, B.S., 1931, Fordham University Charles Herman Snyder, Jr., A.B., 1932, Cornell University Edward Fuller Stanton, B.S., 1926, University of Maine New York, N. Y. Oswego, N. Y. Hartford, Conn. Charles Greaves Stetson, A.B., 1931, Cornell University Milford, Conn. James William S. Stewart, B.S., 1931, College of the City of New York
George Herman Stucck, B.S., 1931, Princeton University
Everett Dornbush Sugarbaker, B.S., 1931, Wheaton College
James Frederick Thackston, B.S., 1924, University of Tennessee,
A.M., 1930, New York University

New York, N. Y. Youngstown, Ohio New York, N. Y. Garden City, N. Y. Upper Montclair, N. J. Floral Park, N. Y. Albany, N. Y.

John Howard Thomas, A.B., 1931, Cornell University
Howard Townsend, A.B., 1922, Harvard University
Jefferson Weed, A.B., 1929, Union College
Charles Hathorn Wheeler, Jr., B.S., 1931, Princeton University
Heins Wichman, B.S., 1931, New York University
Albert Mansfield Yunich, A.B., 1931, Cornell University

FIRST YEAR

Stanley Sisco Atkins, A.B., 1932, Oberlin College
Henry Jennings Babers, Jr., B.S., 1932, University of Florida
John Nickolas Barbey, B.S., 1932, New York University
Henry Kohlman Beling, A.B., 1932, Columbia University
Edwin Tremain Bradley, A.B., 1932, Princeton University
Crispin Cooke, A.B., 1932, Harvard University
Robert Allison Cosgrove, Cornell University\* Trenton, N. J. Gainesville, Fla. Yonkers, N. Y.
Brooklyn, N. Y.
Nyack, N. Y.
Buffalo, N. Y.
Jersey City, N. J.
East Orange, N. J.
New Paltz, N. Y. Ralph Stanton Emerson, Cornell University\*

Leston Edgar Fitch, A.B., 1932, Cornell University

Louise Frances Gilman, A.B., 1932, Wellesley College
Wilson Harmon Glass, A.B., 1932, Dartmouth College
Joseph Paul Gold, A.B., 1932, Cornell University
Edward Mason Goodwin, B.S., 1930, College of the City of New York Sunnyside, L. I.
John Francis Griffin, A.B., 1932, Dartmouth College
Samuel Pollock Harbison, A.B., 1931, Princeton University
Edward Adams Hardy, A.B., 1932, Yale University
George Whiting Hebard, A.B., 1932, Williams College
Mary Ellen Heiss, A.B., 1932, Wellesley College
Herbert Bolster Johnson, Ph.B., 1932, Brown University
Marriott Conard Johnson, B.S., 1924, University of Delaware
Henry Augustus Kingsbury, B.S., 1932, Rutgers University
New Brunswick, N. J. Ralph Stanton Emerson, Cornell University\* Philip John Kunderman, B.S., 1932, Rutgers University New Brunswick, N. J. Kenneth Bedell Lewis, A.B., 1932, Cornell University Rockville Center, L. I. Evarts Greene Loomis, B.S., 1932, Haverford College Newark, N. J. Alvina Looram, A.B., 1931, Barnard College New York, N. Y. Charles Edward Magargee, A.B., 1932, Hiram College Cleveland, Ohio Ernest Andrew Mazaika, A.B., 1932, Middlebury College Waterbury, Conn. George Grenville Merrill, Jr., A.B., 1932, Princeton University Stockbridge, Mass. White Plains, N. Y. Bernard Constant Meyer, A.B., 1932, Harvard University Wilford Bochat Penny, Cornell University\* Garden City, N. Y. Oneida, N. Y. Francis Otto Pfaff, Cornell University\* Edmund Otto Piehler, A.B., 1932, Amherst College Webster, Mass.

Arthur Line

Erwin Emanuel Pietzuch, B.S. College of the City of New William Redmond Power, A.H. Laurence Bender Rentschler, A. George Adam Schumacher, B. James Edward Segraves, B.S., Donald McKay Shafer, A.B., Eva Virginia Smith, A.B., 193 Gordon Alvin Spencer, Colum Martin Howard Stein, B.S., 19 Dana Morris Street, B.S., 1932 Ira Teicher, B.S., 1932, New Alphonse Emanuel Timpanelli Gordon Ira Trevett, A.B., 193 Daniel Gilroy Unangst, B.S., Viola Sterne Wertheim, B.S., Henry Francis White, A.B., 19 Robert Raymond White, A.B.	v York 1932, 19322, 193222, 19322, 19322, 19322, 19322, 19322, 19322, 19322, 19322, 193222, 193222, 193222, 193222, 193222, 193222, 193222, 193222, 1932222, 193222, 193222, 1932222, 1932222, 1932222, 1932222, 1932222222, 193222222, 193222222222222222222222222222222222222	k 1932, 19332, La Colnith Jiniverfi Uni Ru Neerli Neerli	The faye lumb Columbia Columbi	rince Pen tte ( bia U lege y* of th Coll ity Coll ork Un	ton insyl Colle Jnive ie Ci ege umb ge ivers Universivers	University  ty of  ia U  sity  versity	rersi a Sta Ner nive	w Yo	ork (	Phi State Phi State I Whis E Orch	Tre illipsen Is. Norv Buf Brook Broo	Tork, range, enton, sburg, land, vich, falo, clyn, ains, klyn, Park, onne, vack, Tork,	N. Y. N. J. N. J. N. J. N. Y. Conn. N. Y.
Frederick B. Ackermann, A.B. Hyman Engelberg, A.B., 1933, Leo D. Freydberg, A.B., 1932, Cornelia J. Gaskill, B.S., 1932, Joseph L. Gaster, A.B., 1932, George G. Hollins, Jr., Cornel W. Rigby Jacobs, A.B., 1932, Horace L. Jones, Jr., A.B., 1932, Horace L. Jones, Jr., A.B., 1932, Horace L. Jones, Jr., Cornel Edward Kotyuka, A.B., 1932, John W. Latcher, A.B., 1932, William C. Layton, Cornell U Mary Louise Leland, B.S., 192 A.M., 1931, New York Un Ward B. Manchester, Cornell U George E. Pittinos, Jr., A.B., Samuel R. Volpe, A.B., 1932, W. Henry Waller, A.B., 1930, Charles L. Whittemore, A.B.,	, Corn, Corn, Corn, Corn, Bright Un Corn, Corn, Corn, Will Univers Univers Univers DePa	nell iver ham orne iver nell iver ham orne iver nell iver ity nive ersity, Co ell [	Corni Univ Univ Univ You You Ell U Univ * * * * * * * * * * * * * * * * * * *	ell Uvers versi vers ersi ing nive versi  Un ersi ung versi	Jnive ity* ity ity University ty Minu ivers	rersity	y		We	Sweet N	an I Grand Pecks Stroot Month Property of the International Proper	Lake, ville, skill, klyn, tclair, rovo, naca, lelphi igton, ordia, olis, lavia, clyn, rork, ngola	N. Y. N. Y. N. Y. N. Y. N. Y. Utah N. Y. a, Pa. N. J. Kan. Minn. N. Y. Kan. N. Y. N. Y. N. Y. N. Y.
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<sup>\*</sup> Admitted under Clause II.



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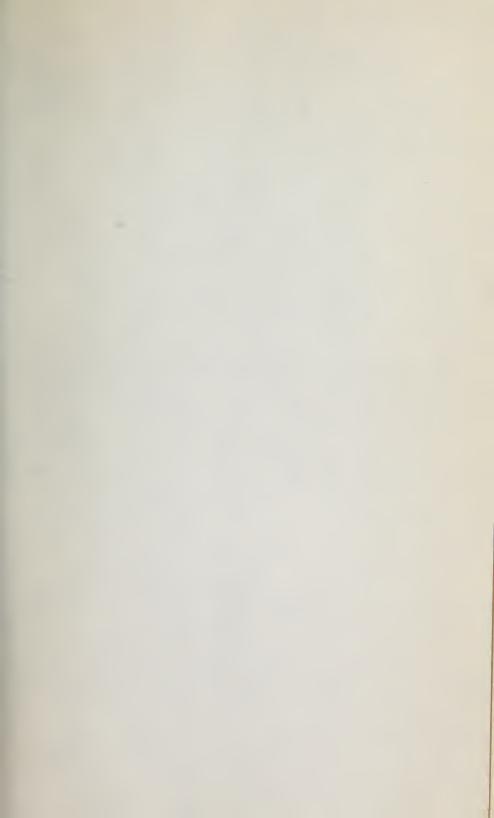
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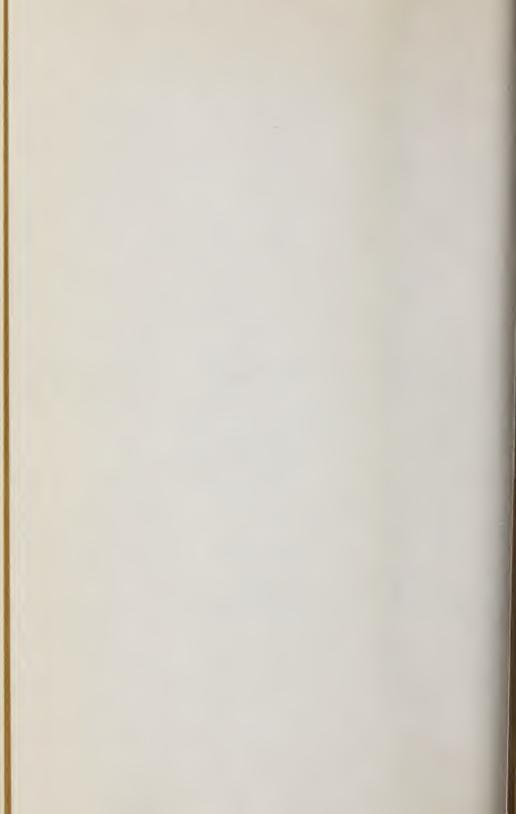
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## CORNELL UNIVERSITY OFFICIAL PUBLICATION

Volume XXV

Number 3

Corrections -

Announcement of
The Medical College
for 1933-34

Ithaca, New York
Published by the University
August 1, 1933

#### CALENDAR 1933-34

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## CORNELL UNIVERSITY OFFICIAL PUBLICATION

Volume XXV

Number 3

# Announcement of The Medical College for 1933-34

at 1300 York Avenue, New York City and the first year, also, at Ithaca, N. Y.

Ithaca, New York
Published by the University
August 1, 1933

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- Sept. 18. Monday—Examinations begin for admission to the first year of all departments of Cornell University at Ithaca, N. Y. Examinations are held at the Medical College, New York City, for the convenience of residents.
- Sept. 20. Wednesday—Examinations begin for conditioned medical students.
- Sept. 25. Monday-Registration Day.\*
- Sept. 26. Tuesday—Classes begin. First quarter and first trimester begin.\*\*
- Nov. 7. Tuesday-Election Day. Legal holiday.
- Nov. 21. Tuesday-First quarter ends.
- Nov. 22. Wednesday-Second quarter begins.
- Nov. 29. Wednesday, 6 P. M.—Thanksgiving recess begins.
- Dec. 4. Monday, 9 A. M.—Thanksgiving recess ends.
- Dec. 22. Friday, 6 P. M.—Christmas recess begins. First trimester ends.

1934

- Jan. 3. Wednesday, 9 A. M.—Christmas recess ends. Second trimester begins.
- Jan. 31. Wednesday—Second quarter ends.
- Feb. 1. Thursday-Third quarter begins.
- Feb. 22. Thursday-Washington's Birthday. Legal holiday.
- March 10. Saturday—Second trimester ends.
- March 12. Monday—Third trimester begins.
- March 29. Thursday, 6 p. m.—Third quarter ends. Easter recess begins.
- April 2. Monday, 9 A. M.—Fourth quarter begins. Easter recess ends.
- May 26. Saturday—Third trimester and fourth quarter end.
- May 28-
- June 2. Final examinations.
- May 30. Wednesday-Memorial Day. Legal holiday.
- June 7. Thursday, 4 p. M.—Commencement.

\*All students must register in person at the office of the Dean on or before September 25. No student will be admitted after Registration Day without special permission of the Associate Dean. Upon registration all fees must be paid at the business office.

\*\*The first year of the medical course is divided into trimesters; the second, third, and fourth years into quarters.

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\*Term of office expires in 1934, the next group of six in 1935, etc. B, elected by the Board; A, elected by the Alumni; G, appointed by the Governor; Gr, elected by the State Grange.

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#### THE NEW YORK HOSPITAL-CORNELL MEDICAL COLLEGE ASSOCIATION

The Association was formed by an agreement between the New York Hospital and Cornell University in order to associate organically the hospital and the medical college and to effect a complete cooperation of the medical, educational, and scientific activities of the two institutions.

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<sup>1</sup>Neurology.

<sup>2</sup>Dermatology.

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Associate Attending Surgeon Milton L. Berliner, M.D.

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Attending Surgeon

CHARLTON WALLACE, M.D.

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<sup>2</sup>Proctology.

<sup>3</sup>Neuro-Surgery.

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John W. Stickney, M.D.
Edward Tolstoi, M.D.

<sup>1</sup>Neurology.

<sup>2</sup>Dermatology.

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A. V. WEINBERGER, M.D.

<sup>2</sup>Dermatology.

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KARL J. THOMSON, M.D.

<sup>1</sup>Neurology.

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## Clinical Assistants

JUDSON B. GILBERT, M.D.

NORMAN L. HIGINBOTHAM, M.D.

JOHN KELLY, M.D.

## Anaesthetists

HARRY LANDESMAN, M.D.

ALFRED E. PHELPS, M.D.

### Clinical Fellows

GEORGE S. SHARP, M.D.

WILLIAM J. HOFFMAN, M.D.

ROBERT F. McNattin, M.D.

John Wirth, M.D.

Murray M. Copeland, M.D.

Alfred F. Hocker, M.D.

William S. MacCome, M.D.

<sup>1</sup>Urology. <sup>2</sup>Gynecology. <sup>3</sup>Neurology.

## DEPARTMENT OF LABORATORIES

## JAMES EWING, M.D., Director

JAMES EWING, M.D			Pathologist
FRED W. STEWART, M.D			
STANLEY R. BENEDICT, Ph.D.			
HELEN Q. WOODWARD, Ph.D.			
KANEMATSU SUGIURA, Sc.D			Chemist
HELEN R. DOWNES, Ph.D			Chemist
GIOACCHINO FAILLA, E.E., D.So			
EDITH M. QUIMBY, M.A			
ELISE S. L'ESPERANCE, M.D			
JOHN C. TORREY, M.D			
HALSEY J. BAGG, Ph.D			
CLARENCE R. HALTER, Ph.D.			
PAUL S. HENSHAW, Ph.D.			
LEON C. CHESLEY, Ph.D			
WILLIAM S. DUNN			

## GENERAL STATEMENT HISTORY

CORNELL UNIVERSITY MEDICAL COLLEGE was established by the Board of Trustees of Cornell University on April 14, 1898, when they elected Dr. William M. Polk Director of the College and Dean of the Medical Faculty, and appointed six professors. The Medical College was made possible by the munificence of Colonel Oliver H. Payne, who provided the funds for the erection of the main building of the college, and pledged it his support. For several years he provided funds for the annual support of the college, and later made a generous provision for its permanent endowment by a gift of over four million dollars to the university.

In October, 1898, instruction began in temporary quarters. As the medical college admitted a number of students with advanced standing, Cornell University granted the degree of Doctor of Medicine for the

first time in 1899.

In order to link up as far as could be done the medical college in New York City with the university of which it is a part, instruction in the medical sciences was begun at Ithaca the same year that the Cornell University Medical College came into being in New York City. The first two years of medical studies could be pursued either at Ithaca or in New York, while all students joined in New York City for the last two years, consisting mainly of clinical study, and the application of the medical sciences in the practice of medicine in its many divisions. The plan providing instruction at Ithaca was changed in 1908, as it was felt that the medical students should come earlier under the influence of the teaching centered about the various New York hospitals, and since that date only the first year of medical instruction has been offered on the campus of Cornell University at Ithaca.

The Cornell University Medical College from its foundation has undertaken to carry out two allied activities, the development of physicians of the best type and the extension of medical knowledge by means of research. The medical faculty has held from the beginning of its existence the attitude that these two functions are necessary as constituting a true university school. It is committed not only to conducting teaching of high order, but also to studying disease and the sciences underlying medicine in order to add to medical knowledge, to search for new means of combating disease, and to publish the results of research so that they may be available for the benefit of all

mankind.

## THE NEW YORK HOSPITAL-CORNELL MEDICAL COLLEGE ASSOCIATION

The future of Cornell University Medical College is now bound up with that of the New York Hospital, and since September, 1932, the two institutions have occupied the same plant.

The New York Hospital was founded by Royal Charter on June 13, 1771, in the reign of King George III, and has stood throughout the life of the nation as one of the foremost hospitals in the United States, as an institution rendering service to the sick and injured, and as a center of medical education. For a number of years the hospital and the medical college have been partially affiliated. In June, 1927, an agreement was entered into between Cornell University and the New York Hospital by which the New York Hospital-Cornell Medical College Association was formed for the purpose of bringing together their facilities and cooperating in the care of patients, in medical education, and in medical research. In order to harmonize the interests of the hospital and of the medical college, the Joint Administrative Board was formed, consisting of three representatives of each institution and a seventh member elected by those appointed by the hospital and by the university.

Additional endowment has been secured by each institution. A group of buildings has been erected along the East River between 68th and 71st Streets, adjoining the Rockefeller Institute for Medical Research. The new plant affords separate buildings for each of the various laboratory departments, and includes approximately 1000 hospital beds. Provision has been made for medicine, surgery, obstetrics and gynecology, pediatrics, and psychiatry in five distinct clinical units.

The faculty of the medical college and the professional staff of the hospital have been reorganized so as to form one body established on a university basis

university basis.

The new plant now completed affords very favorable conditions for the conduct of medical education, for the pursuit of medical research, and for the care of patients in all phases of medical practice.

#### **FACILITIES FOR INSTRUCTION**

From the point of view of medical instruction, the facilities provided by the new plant of the New York Hospital-Cornell Medical College Association are in many respects unexcelled. The plant consists of eleven buildings, joined either directly or by underground passages. All of these buildings have been designed as parts of a great teaching institution, and in planning them much thought was given to the problems of teaching. Nearly five years were required to plan and construct the group of buildings to be devoted to the care of patients, to medical teaching and to scientific research in the various fields of medicine.

The instruction in the medical sciences is conducted in a group of laboratories extending along York Avenue from 68th to 70th Street, centering about a court at the end of 69th Street, where the entrance of the medical college is located. Four buildings five stories high with two basements face York Avenue. The two outer buildings are connected with the central group by buildings two stories in height. At the northern end of the group is the laboratory of the Department of Anatomy with the Department of Public Health and Hygiene in the

connecting wing. The building at the southern end contains the laboratories of Biochemistry and Pharmacology. The central group of buildings is formed by the laboratories of the Department of Physiology on the south, and those of the Department of Bacteriology and Immunology on the north, joined by a seven-story building which contains the offices of the medical college, the library, and the Department of Pathology. This central building of the college is joined on all floors with the central hospital building.

Student laboratories and lecture rooms are provided on the second and third floors of these buildings and extensive facilities for research by staff and students are available on other floors. A series of locker and lounge rooms is provided for the use of students. A cafeteria under the direction of the chief dietitian is maintained for students and

faculty.

Clinical instruction is given in the five separate clinics forming the New York Hospital. The medical and surgical clinics occupy the central hospital building, while the woman's clinic, the pediatric clinic, and the psychiatric clinic extend from north to south, overlooking the East River. Each clinic contains, besides provision for bed-patients, its own out-patient department, lecture rooms and laboratories for routine study and for clinical research. Special provision has also been made for the laboratory work of students. The medical clinic occupies the second to fourth floors of the central hospital building, with six pavilions for bed-patients, three floors for its out-patient department, and extensive laboratories for chemical, physiological, and biological research.

The surgical clinic occupies the pavilions from the fifth to the ninth floor, with out-patient and other facilities for the various surgical specialties. The operating rooms are on the tenth and eleventh floors. Above are six floors containing one hundred rooms for private patients, while the living quarters for the resident staff are on the six floors at the top of the building. Although the entire hospital has a capacity of approximately 1,000 beds, only about 600 beds are now in use.

The head of each clinic, responsible for the care of patients and the conduct of the professional services of the hospital, is also professor in charge of the corresponding department of the medical college. Each clinical department is staffed in part by teachers and clinicians, including the professor in charge, who devote their entire time to the service of the college and hospital, while other members of these departments

devote part of their time to private practice.

Although the clinical teaching is conducted largely in the New York Hospital, advantage is also taken of special facilities afforded by other hospitals. In some of these hospitals the staff appointments are controlled by the medical college, while in others the teaching privileges have been granted to the members of the staffs who are also members of the medical college faculty.

Bellevue Hospital. Bellevue is the central hospital of the New York City Department of Hospitals. It contains 1,200 beds and is de-

voted to the treatment of acute diseases. It is organized in four divisions, one of which has been placed at the disposal of the faculty of Cornell University Medical College for medical instruction. The services conducted by the college include a medical service and a surgical service, each of 90 beds, a urological service and a neurological service of approximately 60 beds each. The staffs of these services are nominated by the college from among the members of its faculty and teaching staff, and the medical college is responsible for the professional conduct of these services.

MEMORIAL HOSPITAL. Through the generosity of the late Dr. James Douglas, who provided the hospital with an endowment for the study and treatment of cancer and allied diseases, the Memorial Hospital became affiliated in 1914 with Cornell University Medical College. According to an agreement between the memorial hospital and the college, the professional staff is named by the Council of the Medical College, subject to the approval of the board of managers of the hospital. The facilities of the hospital, which are of exceptional value in the field of cancer, are available for study in this field by the members of the hospital staff, and unusual opportunities are afforded for instruction in the pathology, diagnosis, and treatment of neoplastic diseases.

The John E. Berwind Free Maternity Clinic. An affiliation having been consummated between the John E. Berwind Free Maternity Clinic and Cornell University Medical College, the medical direction of the clinic is placed under the control of the college. The medical staff, including the resident and house staffs, are appointed by the clinic only on nomination by the medical college.

Cornell students are assigned to the clinic for practical instruction under the direction of the Professor of Obstetrics and Gynecology.

When Cornell students have been provided for, vacancies in the student staff will be filled by appointment. Application for such assignments should be made to the Superintendent of the Clinic, 125 East 103rd Street, New York, N. Y.

The New York Nursery and Child's Hospital. By courtesy of the trustees of this hospital, its facilities have been placed at the disposal of the medical college for instruction in pediatrics. The hospital has provided laboratory and teaching facilities which have been of great value in the study of the disorders and diseases of childhood, and which have served for purposes of instruction in this field.

WOMAN'S HOSPITAL. By a provision in the act of incorporation of the Woman's Hospital it is open for the purpose of medical education. As the chief surgeon is a professor in the medical college, this hospital affords excellent opportunities for instruction in gynecology.

Manhattan State Hospital, Ward's Island. This hospital for the care and treatment of mental diseases accommodates over 5,000 patients. Through the courtesy of the superintendent, the Department of Psychiatry is enabled to utilize this clinical material for bedside study of patients and for the instruction of students.

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St. Luke's Hospital. Teaching privileges have been granted for surgical instruction which is conducted under the direction of a professor in Cornell University Medical College who is an attending surgeon of St. Luke's Hospital. The surgical service of this splendid institution affords valuable opportunities for the study of surgery.

OTHER HOSPITALS. Instruction is also conducted at the Willard Parker Hospital, the Hospital for the Ruptured and Crippled, and St. Mary's Hospital, in which staff positions are held by members of the faculty and teaching staff who have the privilege of conducting medical THE RUSSELL SAGE INSTITUTE OF PATHOLOGY instruction.

This institute has been associated with Cornell University Medical College since 1913, through its affiliation with the Second Medical (Cornell) Division of Bellevue Hospital. It has supported research work in metabolism conducted by the members of the Department of Medicine. Dr. Eugene F. DuBois, Professor of Medicine, is the medical director of the institute. The respiration calorimeter which has been operated for a number of years by Dr. DuBois at Bellevue Hospital has been transferred by the directors of the institute to the New York Hospital, and sufficient funds for carrying on the important metabolic studies of the staff have been provided by the institute.

The reading room of the library is situated on the second floor of

the central group of laboratory buildings, directly over the entrance of the medical college. The current journals are kept in racks about three sides of the room. The book stacks are directly behind and open to the reading room, and extend down to the sub-basement with six floors of stacks and accommodations for about 100,000 volumes. There is also a library seminar room, and several rooms for the library staff.

The library contains at the present time about 20,000 volumes, largely made up of complete sets of important journals in the fields of clinical medicine and the medical sciences, in English, German, and French. There are also well-selected collections of monographs, text-

books, and reprints.

The library is under the direction of a committee of the faculty, and in charge of a trained librarian who gives instruction to students on the proper methods of using the library and of searching medical literature.

A special fund, maintained in memory of Alfred Moritz Michaelis, M.D., Cornell 1925, who died the year after his graduation, is used for the purchase of biographies, books of cultural value in medicine and

In addition to the college library, students may obtain certain privileges at the library of the New York Academy of Medicine, Fifth Avenue and 103rd Street, the second largest medical library in the United States.

## REQUIREMENTS FOR ADMISSION AND GRADUATION

The faculty of Cornell University Medical College is of the opinion that candidates for admission to the medical profession should possess the liberal culture and general education implied by a college degree in arts or science. Only the following classes of candidates for the degree of Doctor of Medicine are admitted to Cornell University Medical College.

I. Graduates of approved colleges or scientific schools; or

II. Seniors in good standing in approved colleges or scientific schools upon condition that their faculty will permit them to substitute the first year in Cornell University Medical College for the fourth year of their college course, and will confer upon them the bachelor's degree upon the satisfactory completion of the year's work. No student admitted under this clause is permitted to enter the second year of the curriculum without having obtained a bachelor's degree.

III. Persons who give evidence by examinations that they have acquired an equivalent education to that signified by a bachelor's degree, and training sufficient to enable them to profit by the instruction offered in the medical college. This rule is intended to apply to stu-

dents of foreign universities.

ALL CANDIDATES FOR ADMISSION shall have satisfactorily completed, in an approved college, at least the following minimum requirements, in which a semester hour is the credit value of at least sixteen weeks' work, consisting of one hour of lecture or recitation or two or more hours of laboratory work, per week.

1. Physics, 6 semester hours, including laboratory work.

2. Chemistry, 12 semester hours (8 hours of inorganic, including qualitative analysis and 4 hours of organic chemistry). Quantitative

Analysis is recommended but not required.

- 3. Biology (Zoology), 6 semester hours, including laboratory work. In addition to this minimum requirement, a course in general histology with embryology including the early development of the frog and chick is very desirable. Courses in the comparative anatomy of vertebrates and elementary histological technique are also recommended.
  - 4. English, 6 semester hours.

5. Modern language, 6 semester hours—French or German.

6. Students planning to study medicine should bear in mind that bacteriology, immunology, human physiology and abnormal psychology are properly subjects of the medical, and not the pre-medical curriculum. In planning pre-medical work students are advised to elect subjects which will lay a broad foundation for medical study rather than to anticipate courses required as a part of the medical curriculum. It is also suggested that students follow mathematics of college grade up to and including calculus, particularly if advanced work in the medical sciences is contemplated.

#### APPLICATIONS FOR ADMISSION

All applications and inquiries regarding admission are to be addressed to the Secretary of the Faculty, from whom application forms may be obtained. Applications for admission should be submitted not later than January of the calendar year in which admission is desired, and should be followed promptly by an official transcript of the college record. A recent unmounted photograph of the applicant must be attached to each application.

All applicants, if requested, are required to present themselves in person by appointment at the office of the Secretary of the Faculty at some

time after their credentials have been submitted.

Applications are passed upon by the Committee on Admissions after all credentials have been filed. Candidates are promptly notified of the decision of the Committee. Accepted applicants are required to make a deposit of one hundred dollars within a specified time, usually about two weeks after notification of admission. This deposit is not returnable, but is credited toward the first tuition payment. If he fails to make this deposit within the time specified the applicant forfeits his place in the medical college.

A medical student's qualifying certificate, issued by the New York State Education Department signifying that its requirements have been met, must be secured before registration by each student accepted for admission. An application blank for the certificate with full instruc-

tions will be sent by the college to each student admitted.

#### ADMISSION TO ADVANCED STANDING

When vacancies occur, students may be admitted to advanced stand-

ing under the following conditions:

Applications for advanced standing should be filed according to the procedure described for admission to the first year class, accepted applicants being required to make the same deposit of one hundred dollars. Applicants must not only furnish acceptable evidence of having satisfactorily completed in an approved medical school all the work required of students of the class they wish to enter, but also of having completed the conditions of admission to the first year class at Cornell University Medical College. They must also present a certificate of honorable dismissal from the medical school or schools they have attended.

Examinations may be required in any of the medical courses taken

at another school.

#### **EXAMINATIONS AND PROMOTIONS**

I. ADVANCEMENT. Students are advanced in their course upon recommendation of the Committee on Promotion and Graduation, which is composed of the heads of departments or their representatives responsible for the more important courses of each year. The quality

out

of the work of each student is considered, usually at the end of each term. Students are notified whenever the committee considers that their work is of an unsatisfactory quality. No grades are ever announced to students.

II. Examinations. Examinations for advancement, graduation, and admission to advanced standing are held at the close of the academic year, except that in each course extending through a part of the year only, examinations may be held at the close of the course in the hours allotted thereto.

Students who fail in more than 40 per cent of the required hours of the first year, or in more than 30 per cent of the required hours of the subsequent years, must withdraw from the medical college. Students failing in less than the number of hours prescribed above may be reexamined, but only after pursuing additional work, under the direction of the head of the department in which a failure has occurred, throughout at least one term, or during a summer vacation.

Students who fail on reexamination are required to withdraw from the medical college, unless under special circumstances they are permitted by the Committee on Promotion and Graduation to repeat courses in which failures have occurred. Students repeating any work may be forbidden by the committee to take all or some of the courses they would normally carry.

Any student who by quality of work or conduct indicates an unfitness to enter the profession of medicine may, at the discretion of the faculty, be required at any time to withdraw from the medical college.

## REQUIREMENTS FOR GRADUATION

The candidates for the degree of Doctor of Medicine must have attained the age of twenty-one years, and be of good moral character. They must have spent at least four years of study as matriculated medical students, the last of which must have been in Cornell University Medical College. They must have satisfactorily completed all the required work of the medical curriculum, must have passed all prescribed examinations, and be free from indebtedness to the college. At the end of the fourth year every student who has fulfilled these requirements will be recommended to the President and Trustees of Cornell University for the degree of Doctor of Medicine.

## EXAMINATIONS FOR MEDICAL LICENSURE

Graduates of Cornell University are admitted unconditionally to the examinations for license to practice medicine in all states of the United States.

In New York State all requirements for admission to examinations for license should be filed with the State Education Department at least fifteen days before the examinations are held. In 1934 these examinations will be held in February, June, and September (dates to be announced) at New York, Albany, Syracuse, and Buffalo.

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Students and graduates of Cornell University Medical College are admitted to the examinations of the National Board of Medical Examiners, whose certificate is accepted by the Surgeons-General of the Army and Public Health Service of the United States and by the boards of medical licensure of forty-one states, Porto Rico, Hawaii, and the Canal Zone. This certificate is also recognized by the respective authorities of England, Scotland, and Ireland. For information write to The National Board of Medical Examiners, 225 South Fifteenth Street, Philadelphia, Pa.

## GENERAL INFORMATION

#### FEES AND EXPENSES

All fees for instruction and other charges are paid at the Business
Office of the Medical College. Room 7 108. 1300 Yorke ave
Tuition Fee \$500 per year.
This fee is payable at the beginning of the academic year or in two equal parts, in which case the first payment must be made at registration and the second
on January 15. No refund or rebate will be made in any case.
An advance of \$100 on account of tuition is required of all applicants accepted for admission and is not returnable. At matriculation it is credited toward tuition.
Matriculation Fee
Breakage Deposit
Obstetrics Fee
Final Examination Fee
Students of the Graduate School: For fees, see page 94.
Special Students:
MATRICULATION AND ADMINISTRATION FEE \$15 Tuition: See sections describing the courses offered.
All students entering the medical college are required to provide

All students entering the medical college are required to provide themselves with satisfactory microscopes. Haemocytometers and haemoglobinometers will be required at the beginning of the third quarter of the second year. The necessary books are conservatively estimated to cost about \$50 per year.

All students should assure themselves that they can carry the financial burdens involved with reasonable certainty up to the time of graduation. Experience has proved that the student will need his entire time and undivided interest for study. It is unwise to depend upon earning any part of one's expenses during the college year. See requirements for graduation, page 52.

#### STUDENT HEALTH SERVICE

All members of the first year class and all students transferred from other colleges are required to have a thorough physical examination by a member of the staff assigned by the college physician. All students are re-examined yearly. Health records are kept, and students are advised concerning their physical condition and general health. All cases of illness must be reported immediately to the college physician. Students may have in attendance physicians of their own choice, but a reasonable amount of cooperation between such physicians and the college health service is expected. A woman physician on the staff will be available for women students. The college physician will have regular office hours daily. Students pay no fees for the services of the authorized staff.

#### SCHOLARSHIPS\*

- 1. The John Metcalfe Polk Scholarship. A gift under the will of William Mecklenberg Polk, the first Dean of the medical college, is awarded annually by the faculty. The scholarship amounts to \$250 a year.
- 2. The Thorne Shaw Scholarship Fund. This fund provides three scholarships designated as:

First: A scholarship of \$500 available to students after at least two

years of study in the medical college.

Second: Two scholarships of \$250 each available to students after at least one year of study in the medical college.

These scholarships are awarded by the faculty upon nomination by the Committee on Scholarships and Prizes. They are awarded annually in June and are for one year only. Students receiving the scholarships are notified of the award at the end of the session, and public announcement is made at the opening of the subsequent session in September.

3. MARY F. HALL SCHOLARSHIP. The income, amounting to about \$150 annually, from a fund established by bequest of Miss Mary F. Hall, is available to any woman student in Cornell University Medical College who needs its aid and who is a bona fide resident of the State of New York and was such prior to admission to the college.

#### LOAN FUNDS

- 1. The 1923 LOAN FUND. This fund amounts to \$350 a year and is available as a loan to students needing financial assistance, preferably to a third year student.
- 2. ALUMNI Association Loan Fund. The Alumni Association of the medical college has set aside sufficient funds to aid several students in meeting their tuition expenses. This fund will be administered by the medical college in cooperation with a committee of the Alumni

<sup>\*</sup>Scholarships are awarded primarily for merit, with need a secondary consideration.

Association. Students receiving aid from this fund will, as a general rule, be selected from the upper classes.

3. Get-Together Loan Fund. This fund has been collected by the students of the medical college, and is available for a student of the third or fourth year class who is in need of immediate financial assistance.

#### **PRIZES**

- 1. For General Efficiency. In commemoration of John Metcalfe Polk, an instructor in this college, who was graduated from Cornell University Medical College on June 7, 1899, and died on March 29, 1904, prizes will be presented at each commencement to the three students having the highest standing for the four years work. Only those who have taken the full course of study at Cornell University Medical College are eligible. The first prize is \$300, the second \$125, and the third \$75.
- 2. For Efficiency in Gynecology. Established by Mrs. W. M. Polk in memory of William Mecklenburg Polk, M.D., LL.D., Dean and Professor of Gynecology in Cornell University Medical College from its founding in 1898 until his death, June 23, 1918, annual prizes are awarded to three members of the senior class, in order of merit, for special distinction in gynecology. The first prize is \$125, the second \$75, and the third \$50.
- 3. For Efficiency in Otology. Two prizes, the first of \$50, the second of \$25, are offered by Professor Frederick Whiting to the two students of the graduating class who make the best records in otology.
- 4. For Efficiency in Obstetrics. Two prizes, the first of \$75, the second of \$25, have been endowed by an anonymous donor in recognition of the work of Dr. Gustav Seeligman in obstetrics, to be given to the two students of the graduating class who have made the best records in obstetrics.
- 5. For Efficiency in General Medicine. The income of \$1,000 is offered as a prize for general efficiency in the Department of Medicine, to be known as the Alfred Moritz Michaelis prize in general medicine, in commemoration of Alfred Moritz Michaelis, who was graduated from Cornell University Medical College on June 11, 1925, and who died during his interneship at Mt. Sinai Hospital, April 24, 1926. Presented at each commencement to a member of the graduating class who has pursued the full course at Cornell University Medical College.

6. FOR EFFICIENCY IN RESEARCH. In memory of William Mecklenburg Polk, M.D., LL.D., first dean of the medical college, two prizes are offered to regularly matriculated students of the Cornell University Medical College, the first of \$200, and the second \$50.

The awards are made annually at the opening exercises of the medical college in September for the best reports presented in writing of research work done by students, or for valuable reviews and logical presentations on medical subjects not to be found fully considered in a single

text or reference book. If the papers submitted are not considered

worthy of special commendation the prizes will be withheld.

Papers are submitted in quadruplicate in a sealed envelope marked, "Dean William Mecklenburg Polk Memorial Prize Committee," and must be in the Dean's Office not later than the first day of September.

The committee of awards for this prize consists of two members of the faculty from laboratory departments, and two from clinical de-

partments.

7. For Efficiency in Neurology. A prize of \$50 is offered by Dr. Foster Kennedy, to a student of the graduating class who makes the best record in neurology.

## EDUCATIONAL POLICIES

#### AND

#### PLAN OF INSTRUCTION

The medical college is divided into thirteen major departments, six of which are primarily concerned with the sciences underlying clinical medicine. They are anatomy, biochemistry, physiology, bacteriology and immunology, pathology, and pharmacology. Seven departments have as their major functions the study, treatment, and prevention of human disease, and maternity care. These are medicine, surgery, pediatrics, psychiatry, obstetrics and gynecology, public health and preventive medicine, and applied pathology and bacteriology.

The heads of these thirteen major departments, together with the President of the University, the Director, and the Associate Dean, constitute the Executive Faculty, which is responsible for the educa-

tional policies of the college.

Courses required to be completed by each student before the degree of Doctor of Medicine is conferred by Cornell University are offered by each department. These courses are arranged, in their sequence and duration, to develop logically the knowledge and training of students and to build up gradually the requirements needed for graduation as Doctor of Medicine. The various departments also offer courses and opportunities for special study open to regular medical students, to candidates for advanced degrees in the Graduate School of Cornell University, and to qualified advanced students of medicine not candi-

dates for degrees.

Medical knowledge is so extensive that only a relatively small part of that needed for a successful career in medicine can be acquired during a reasonable length of time devoted to medical study after completion of the required collegiate education and before beginning independent professional work as a doctor of medicine. Four periods of thirty-two weeks each is the time necessary to complete the requirements for the degree of Doctor of Medicine. The required period of study extends over four academic years, of which approximately twenty weeks of each year are allowed for vacation. It is planned that studies may be pursued during vacation periods. This will provide an opportunity to shorten the time necessary to complete all required courses and thereby to devote more time to elective work. Opportunities for studying in other medical schools may also be arranged during the course if appropriate conditions can be found.

As medical science and medical practice may be pursued in a variety of ways, it is the policy of the college to encourage the student to vary his course of study according to his special interests and particular talents as far as is consistent with meeting the requirements for the

degree of Doctor of Medicine.

A thesis is not required for the degree of Doctor of Medicine, but students are encouraged to engage in individual work as far as their time permits, with the hope that they may accomplish results worthy of publication. It is therefore desirable for some students to devote all their free time to a single subject in which they have a special interest.

The development of technical and scientific proficiency in the various special fields of clinical medicine is not encouraged during the regular medical course, but must await adequate training after graduation.

The first year of study is devoted to anatomy, biochemistry, and physiology. It is divided into trimesters, while in subsequent years the regular period of study consists of four periods or quarters of eight weeks each.

During the second year, the required courses in physiology, pathology, bacteriology and immunology, and in pharmacology occupy the first three quarters. The last quarter is devoted to technical training preparatory to the study of patients, courses being given by the departments of applied pathology and bacteriology, medicine, and anatomy.

During the third and fourth years, students are divided into small groups for practical work in the various clinics and for elective work. The third and fourth year classes meet together at noon each day for clinical lectures and demonstrations and for clinical-pathological con-

ferences.

Time for elective work is provided in the second and fourth years, after students have had opportunities to acquire some knowledge of the medical sciences and of clinical medicine. Students are advised to consult informally members of the faculty in regard to the use of their time for elective work, as it is deemed best not to establish a formal advisory system.

The details of the courses offered by each department are to be found

in the departmental announcements.

The faculty expressly reserves the right to make alterations in the curriculum whenever advisable and without previous notice to students.

## TABLE OF REQUIRED HOURS

Anatomy Histology and Embryology Neuro-Anatomy Biochemistry Physiology Pharmacology Bacteriology	First Year 442 254 88 244 132	Year 24 112 120 144	Third Year	Fourth Year
Pathology		304		
CLINICAL PATHOLOGY		128	2.61	200
Medicine		120	361	300
Dermatology			16*	
Neurology			12*	
Neuropathology			24*	260
SURGERY			417	268
			36** 24**	
Urology			16**	
			16**	
OTOLARYNGOLOGY			16**	
OBSTETRICS AND GYNECOLOGY			188	244 (Minimum)
_				344 (Minimum) 68
PEDIATRICS	22	2.4	115	
Psychiatry Public Health	33	24	63	82
RADIOLOGY			0	96
ELECTIVE	(10)	(200)	8	(156)
LLECTIVE	(49)	(200)	(24)	(156)
TOTAL	1193	976	1152	1158

<sup>\*</sup>Included in 361 hours allotted to Medicine.
\*\*Included in 417 hours allotted to Surgery.

#### **ANATOMY**

CHARLES R. STOCKARD, Professor of Anatomy.
CHARLES V. MORRILL, Associate Professor of Anatomy.
GEORGE PAPANICOLAOU, Assistant Professor of Anatomy.
JOSÉ F. NONIDEZ, Assistant Professor of Anatomy.
PHILIP B. ARMSTRONG, Assistant Professor of Anatomy.
LOUIS HAUSMAN, ASSOCIATE IN NEUTO-Anatomy.
EMILIA M. VICARI, Research Associate in Anatomy.
JOSEPH L. SCHWIND, Instructor in Anatomy.
WILLIAM L. SNEED, Instructor in Applied Anatomy.
WILLIAM T. JAMES, ASSISTANT IN ANATOMY.
ALBERT C. REDMOND, Student Assistant in Anatomy.

#### I. Morphology

STRUCTURE OF MAN. This course considers the structure of the various organs and systems of the human body in the light of their variations and evolutions. The relationship of the parts, organs and systems is also explained by numerous facts gathered from experimental morphological studies on lower vertebrates.

The chief aim is to emphasize the idea that animal structures are constantly changing and varying, yet are so definite as to lend them-

selves to logical analysis.

Laboratory, 40 hours (elective), and demonstration conference, 22 hours (optional). Professor Stockard.

#### II. Embryology and Histology

The work in embryology presupposes a general knowledge of the subject, particularly that of the early development of the chick. It embraces a thorough study of the development of the mammalian embryo in the light of our knowledge of the evolution of the human body. Malformations resulting from developmental disturbances are broadly considered. The course is closely correlated with that of gross anatomy.

The work in histology includes the histogenesis and microscopic structure of all organs of the human body with the exception of the central nervous system (See Neuro-anatomy). Emphasis is laid on the

relation of structure to function.

The tissues are studied principally by means of stained sections and practice is given in rapid identification of their diagnostic features. Demonstrations of living material are made and opportunities are offered for acquiring the essentials of histological technique.

A part of the course is devoted to seminars on current literature.

Laboratory course and lectures, 254 hours, October to March. Required of all first year students. Assistant Professor Nonidez, Dr. Schwind and assistants.

#### III. NEURO-ANATOMY

A laboratory course on the gross and microscopic anatomy of the human nervous system. Special emphasis is laid on the more important pathways and their functions.

Laboratory and demonstrations, 88 hours. Required of all first year students during the third term. Assistant Professor Nonidez and

Dr. HAUSMAN.

#### IV. GROSS ANATOMY OF THE HUMAN BODY

This is taught by means of laboratory exercises and dissections. The required work includes: (a) Dissection of the part. (b) Demonstrations, study and discussion upon dissected and prepared specimens, and from standard text-books.

Total laboratory hours, 442 (minimum). First and second terms of

the first year.

Course 1. A Demonstration Course. Demonstrations upon the cadaver, models and dissected preparations amplifying the courses in dissection during the first and second terms of the first year. Optional for the first year students.

Course 2. Study Room Course in Live Anatomy. Since the ultimate aim of dissection is to acquaint the student not merely with the arrangement of structures in the cadaver, but with the facts of the living body, this course follows as a natural sequence to the work of the dissecting room. Optional to first year students.

Course 3. Dissection Review. The work gives an opportunity for advanced dissection. Optional to students of the second, third, or fourth years. Afternoons.

Course 4. Topographical Anatomy. A study of the relations and topography of the parts of the body by means of frozen sections. Cleared preparations and living models are also used. Members of the class must submit a number of drawings made from the sections.

Laboratory, 24 hours. Required during the fourth quarter of the second year. Professors Stockard, Morrill, Armstrong, and as-

sistants.

#### V. ELECTIVE COURSES

Course 1. Preparatory to the Specialties. These courses offer a thorough review of the embryology, histology and gross anatomy of the following organs and systems: (a) the eye; (b) the ear; (c) the face and neck, including especially the nose and accessory sinuses, the mouth and salivary glands, pharynx and larynx, thyroid, and parathyroid glands; (d) the genito-urinary system, male and female; (e)

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the brain and spinal cord; (f) the thorax and abdomen; (g) the extremities, especially the joints and their mechanics. Laboratory, 40 hours. Professor STOCKARD.

Course 2. General Histology. This course will comprise a study of the various types of tissues which form the several organs of the vertebrate body. The structures will be studied not only from the mere morphological standpoint, but the various biological problems involved will be taken into consideration. The close relationship between structure and function will be elucidated.

Twenty lectures. Assistant Professor Nonidez and Dr. Schwind.

Course 3. The Anatomy of the Infant. A course of lectures amplified by demonstrations and the study of preparations.

Twenty demonstrations arranged for in advance. Professor Stock-

ARD.

Course 4. Developmental Arrests and Structural Deficiencies. A discussion of the imperfections in development which may occur during various periods from the maturation of the germ cells, fertilization of the egg on through embryonic and fetal development.

Fifteen lectures. Professor STOCKARD.

Course 5. Experimental Embryology. These lectures begin with the history of the subject and the various aspects of the problems concerned. The experimental analysis of embryological processes is then considered from several points of view.

Twenty lectures with conferences considering the recent literature

of the subject. Professor STOCKARD.

Course 6. REGIONAL ANATOMY. This course will comprise a thorough review by means of dissections, demonstrations and reading of the gross anatomy, histology and development of selected regions of the body and of organs and organ systems.

Laboratory and demonstration, 3 half days a week for one month.

Associate Professor Morrill and assistants.

- Course 7. APPLIED ANATOMY. Special emphasis on fractures, dislocations, and injuries to the spine and extremities. The course will include eight conferences. Not given for less than six students. Dr. SNEED.
- Course 8. Anatomical Research. To students desiring to pursue research in anatomical subjects the equipment of the entire department is available. Members of the staff will assign subjects and direct the progress of advanced work of this type. The work may be elected by students who enter with advanced credits, or by any student who has completed the preliminary courses in descriptive anatomy, histology and embryology. The course is also open to graduates in medicine or biology.

OTHER ELECTIVES. The Department of Anatomy will arrange a schedule of work to fit individual cases for a limited number of fourth-year students desiring to devote the major part or all of their elective

time. Such work will be designed, in cases where sufficient time is available, to equip the student to become a laboratory assistant.

# COURSES OPEN TO STUDENTS OF THE GRADUATE SCHOOL

- 1. Embryology. September to March. Fee \$50. Details, pages 61, 63.
- 2. HISTOLOGICAL TECHNIC.\* Laboratory at least three hours daily and conferences with instructors. Fee \$30.
- 3 and 4. General Histology and Microscopical Anatomy. September to March. Fee \$50. Details on page 61.
- 5. Dissection.\* See Courses I-IV, page 62. Fee \$30 per term (ten weeks); or for the entire dissection, \$50.
  - 6. Neuro-Anatomy. March to May. Fee \$30. Details on page 62.
- 7. Anatomical Research.\* Subject to special arrangement with the head of the department.

## BIOCHEMISTRY

STANLEY R. BENEDICT, Professor of Biochemistry. RICHARD W. JACKSON, Assistant Professor of Biochemistry. NATHAN F. BLAU, Research Associate in Biochemistry. WILLIAM H. SUMMERSON, Instructor in Biochemistry. Emil Osterberg, Instructor in Biochemistry. JEANETTE ALLEN BEHRE, Instructor in Biochemistry. ELEANOR B. NEWTON, Instructor in Biochemistry. GERTRUDE GOTTSCHALL, Assistant in Biochemistry. GLADYS J. FASHENA, Student Assistant in Biochemistry.

The instruction in biochemistry is concentrated in the first year, and is arranged upon the assumption that the student is already thoroughly grounded in the principles of chemistry and physics. The object is to impart that fundamental knowledge of organic and physiological chemistry which is necessary to the comprehension of the bearings of chemistry upon physiology, pharmacology, and medicine.

Lectures. There are three conferences a week on physical chemistry during the first term. The elements of the subject are presented with special emphasis upon the properties and reactions of colloids, and the theory of indicators. Roentgen and radium rays are also discussed.

During the second term two lectures a week are devoted to organic and physiological chemistry. The lectures discuss groups of compounds of special biological importance, emphasizing the carbohydrates, purines, amino acids and fats.

In the third term two lectures weekly are devoted to physiological

chemistry.

LABORATORY WORK. During the first term there is one session weekly of two hours in physical chemistry. The experiments are designed to

<sup>\*</sup>Courses may be begun at any time.

familiarize the student with the fundamental properties of electrolytes and colloids, and to study the phenomena of osmosis and dialysis. Methods of hydrogen ion determination are also studied.

In the second term there are five hours weekly in organic and physi-

ological chemistry. This work is directed mainly to the study of organic compounds of biological importance, and furnishes practice on

those points in which laboratory manipulations are desirable.

During the third term there are two four-hour laboratory sessions weekly in physiological chemistry. This course includes the study of the reactions of the carbohydrates, fats and proteins; of the composition of the salivary, gastric, pancreatic and intestinal secretions and the bile, and their actions in digestion; of the urine, blood, and milk; and of the examination of pathological fluids, concretions, etc. The arrangement of this course is in coaptation with those in physiology and in clinical pathology.

Total hours, 244.

RESEARCH. The laboratory is open to students of any year who desire to prosecute advanced work or research, subject to the regulations of the office.

# **ELECTIVE COURSES**

CHEMICAL PATHOLOGY. A practical course in the chemical analysis of the blood. The laboratory work is supplemented by informal lectures and discussions. Hours to be arranged.

# COURSES OPEN TO STUDENTS OF THE GRADUATE SCHOOL

- 1. Physical Chemistry as Applied to Medicine.\* Eleven weeks, two lectures, one laboratory period. Fee \$25.
- 2. Physiological Chemistry.\* Two terms, of ten and eleven weeks each. Two lectures and two laboratory periods each week. Fee \$25 per term.
- 3. Chemical Pathology.\* A practical course in methods of blood analysis. Two three-hour periods a week for one month. Fee \$25.
- 4. Research Work in Physiological Chemistry, Chemical Pathology, or Toxicology.\* Hours and fee to be arranged with each student.

## PHYSIOLOGY

HERBERT S. GASSER, Professor of Physiology.

DAYTON J. EDWARDS, Associate Professor of Physiology.

McKeen Cattell, Assistant Professor of Physiology.

WILLIAM H. CHAMBERS, Assistant Professor of Physiology.

HARDY GRUNDERET, Assistant in Physiology.

HARRY GRUNDFEST, Assistant in Physiology.

First Year. Lectures, laboratory and conferences. Physiology of muscle and nerve, the central nervous system, the special senses, digestion and internal secretions. 132 hours.

<sup>\*</sup>These courses may be begun at any time.

Second Year. Lectures, laboratory and conferences. Physiology of the blood, circulation, respiration, and metabolism. 112 hours.

## **ELECTIVE COURSES**

The department will arrange a schedule of work for fourth year students who wish to devote their elective time to physiology.

# COURSES OPEN TO STUDENTS OF THE GRADUATE SCHOOL

- 1. Physiology. Third term. Fee \$50.
- 2. Physiological Research. Subject to special arrangement with the head of the department. May be begun at any time.

## BACTERIOLOGY AND IMMUNOLOGY

James M. Neill, Professor of Bacteriology and Immunology.

J. Lionel Alloway, Assistant Professor of Bacteriology and Immunology.

JOHN Y. Sugg, Instructor in Bacteriology and Immunology.

Lyle A. Weed, National Research Council Fellow.

The course given to second year students consists of lectures, laboratory work, and group conferences. Emphasis is placed upon the aspects of bacteriology and of immunology that are pertinent to an understanding of the etiology and pathogenesis of infectious diseases. The study of infectious material from patients is included in the laboratory part of the course, not only to acquaint the student with the technical procedures, but to illustrate the application of fundamental principles to practical methods. 144 hours.

## **ELECTIVE COURSES**

The department will arrange a schedule of work for fourth year students who wish to devote their elective time to bacteriology and immunology.

# COURSE OPEN TO STUDENTS OF THE GRADUATE SCHOOL

Opportunities for advanced study and for research will be offered to students particularly interested in bacteriology and immunology. Hours to be arranged.

Lectures - Helpern -

## PATHOLOGY

# GENERAL PATHOLOGY, PATHOLOGICAL ANATOMY, EXPERIMENTAL PATHOLOGY

EUGENE L. OPIE, Professor of Pathology.

James Ewing, Professor of Oncology.

Robert A. Moore, Assistant Professor of Pathology.

Jacob Furth, Assistant Professor of Pathology.

Jules Freund, Assistant Professor of Pathology.

Lewis D. Stevenson, Assistant Professor of Neuropathology.

Fred W. Stewart, Associate in Pathology.

Charles T. Olcott, Instructor in Pathology.

Henry W. Ferris, Instructor in Pathology.

D. Murray Angevine, Instructor in Pathology.

Henry S. Dunning, Assistant in Pathology.

Robert J. Parsons, Assistant in Pathology.

Peter A. H. Midelfart, Assistant in Pathology.

## GENERAL PATHOLOGY

FACILITIES. The department of pathology occupies three floors of the central part of the college building, conveniently located above the library and in immediate contact with the hospital, the autopsy room being in the connecting wing between college and hospital. The teaching is largely concentrated on the third floor, where the autopsy room, demonstration room for pathological anatomy, anatomical museum, and class rooms are found. The fourth and fifth floors are chiefly unit laboratories for staff members and graduate students and for technical preparation. In addition, adequate animal quarters and facilities for experimental work are on the fifth, sixth, and seventh floors.

The museum contains a carefully selected collection of nearly three thousand specimens, representing most of the common and many of the more unusual pathological lesions. It is especially rich in lesions of bones and in tumors. In addition to this mounted collection, there is available a very considerable amount of constantly changing gross

material for student study.

For undergraduate teaching, there is a collection of approximately 500 sets of demonstration slides, which are loaned to the student during the course. Supplementing this teaching collection, all the autopsy slides of the New York Hospital for the past 25 years or more, carefully cross-indexed, are kept on file. There is also a general collection of 20,000 slides for special study of specific diseases or organs.

Instruction. The course of instruction is given in the second and third quarters of the second year. It consists of gross and microscopic study of pathological lesions, experiments, lectures and class room

demonstrations. This is supplemented by study of gross pathology at the autopsy table. The course begins with the degenerations, inflammation and repair, and proceeds with the various specific infections. The latter part of the course is devoted to special systemic pathology, including neuropathology.

Course I. General Pathology. Laboratory work with lectures and gross and microscopical demonstrations. The work covers inflammation, degeneration, regeneration, and infectious diseases.

Required in second quarter of second year, 120 hours.

Course II. Systemic Pathology. Continuation of elementary course, covering oncology and pathology of various organ systems. Required in third quarter of second year, 184 hours. Total, 304 hours.

Professors Opie, Moore, and staff.

## **ELECTIVE COURSES**

A student may undertake the investigation of some problem in pathology or may pursue advanced courses in any of several fields, to be determined by consultation with the head of the department. Research or elective courses will ordinarily require the entire time of the student for a period of one to three months, and may be continued into the summer.

# COURSE OPEN TO STUDENTS OF THE GRADUATE SCHOOL

Opportunity is afforded a limited number of students to engage in research under the direction of a member of the department. The student must devote his entire time to work in pathology and related subjects. By special arrangement this work may be pursued at the Memorial Hospital in cancer research.

# PHARMACOLOGY

ROBERT ANTHONY HATCHER, Professor of Pharmacology. HARRY GOLD, Assistant Professor of Pharmacology. Janet Travell, Instructor in Pharmacology.

## I. PHARMACOLOGY

Course 1. LABORATORY. The experiments are designed to illustrate a wide range of pharmacologic actions, the more important drugs being considered with reference to their actions on different structures. Professors HATCHER and GOLD and Dr. TRAVELL.

Course 2. Lectures. Lectures, conferences and written reviews on systematic pharmacology. Professors Hatcher and Gold. Total hours, 120, including materia medica and pharmacy.

## II. MATERIA MEDICA AND PHARMACY

Course 3. Elementary Pharmacy and Toxicology. Consideration of crude drugs, and making pharmacopeial preparations of the different pharmaceutical classes (extracts, pills, etc.) and toxicologic analysis. Each laboratory exercise is preceded by an informal discussion of the work and its relation to therapeutics. Dr. Travell.

Course 4. Prescription Writing. A course of eight hours. Dr. Gold.

Course 5. Research. Students are encouraged to conduct original research under the supervision of the members of the staff. Such work affords a valuable insight into pharmacologic methods, and assists in the formation of a correct estimate of the original work of others. Elective.

## **ELECTIVE COURSES**

The department will arrange a schedule of work for fourth year students who wish to devote their elective time to pharmacology.

# COURSES OPEN TO STUDENTS OF THE GRADUATE SCHOOL

Course 1. Laboratory Pharmacology. Under supervision and including conferences with instructor. Fee \$25.

Course 2. Research Work in Pharmacology.\* Subject to special arrangement with the head of the department.

# APPLIED PATHOLOGY AND BACTERIOLOGY

WILLIAM J. ELSER, Professor of Applied Pathology and Bacteriology.
RALPH G. STILLMAN, Assistant Professor of Clinical Pathology.
GEORGE W. WHEELER, Assistant Professor of Applied Bacteriology.
GUSTAV I. STEFFEN, Instructor in Applied Bacteriology.
RUTH THOMAS, Instructor in Applied Bacteriology.
ELIZABETH WATSON, Assistant in Applied Bacteriology.

The introductory required course is given in the fourth quarter of the second year. It consists of 128 hours of lectures and laboratory work. This time is devoted to the teaching and practical application of methods for the examination of urine, blood, sputum, exudates, transudates, spinal fluid, gastric contents, and feces. The methods studied will include chemical, morphological, serological, cultural and animal inoculation methods which are of value as diagnostic procedures. There will also be included discussion of the significance of findings.

<sup>\*</sup>This course may be begun at any time

## **MEDICINE**

Eugene F. DuBois, Professor of Medicine. G. CANBY ROBINSON, Professor of Medicine. Lewis A. Conner, Professor of Clinical Medicine. WILLIAM R. WILLIAMS, Professor of Clinical Medicine. WALTER L. NILES, Professor of Clinical Medicine. Nellis B. Foster, Professor of Clinical Medicine. MALCOLM GOODRIDGE, Professor of Clinical Medicine. IOSEPH C. ROPER, Professor of Clinical Medicine. Russell L. Cecil, Professor of Clinical Medicine. JOHN W. CHURCHMAN, Professor of Experimental Therapeutics. HENRY B. RICHARDSON, Associate Professor of Medicine. HAROLD J. STEWART, Associate Professor of Medicine. WILLIAM C. THRO, Associate Professor of Medicine. PAUL REZNIKOFF, Assistant Professor of Medicine. HAROLD G. WOLFF, Assistant Professor of Medicine. EPHRAIM SHORR, Assistant Professor of Medicine. Bruce Webster, Assistant Professor of Medicine. ROBERT A. COOKE, Assistant Professor of Clinical Medicine. EDWARD CUSSLER, Assistant Professor of Clinical Medicine. CARY EGGLESTON, Assistant Professor of Clinical Medicine. CONNIE M. GUION, Assistant Professor of Clinical Medicine. ARTHUR L. HOLLAND, Assistant Professor of Clinical Medicine. WILLIAM S. LADD, Assistant Professor of Clinical Medicine. HAROLD E. B. PARDEE, Assistant Professor of Clinical Medicine. HENRY J. Spencer, Assistant Professor of Clinical Medicine. Douglas Symmers, Assistant Professor of Applied Pathology. HARRY A. BRAY, Lecturer in Medicine. ROBERT O. LOEBEL, Instructor in Medicine. EDITH E. NICHOLLS, Instructor in Medicine. WENDELL J. STAINSBY, Instructor in Medicine. WILLIAM D. STRAYHORN, Instructor in Medicine. KARL J. THOMSON, Instructor in Medicine. ABRAHAM A. ANTOVILLE, Instructor in Clinical Medicine. BENJAMIN I. ASHE, Instructor in Clinical Medicine. HORACE S. BALDWIN, Instructor in Clinical Medicine. JAMES M. BETHEA, Instructor in Clinical Medicine. GEORGE E. BINKLEY, Instructor in Clinical Medicine. EDWARD A. BURKHARDT, Instructor in Clinical Medicine. LAILA COSTON-CONNER, Instructor in Clinical Medicine. THEODORE J. CURPHEY, Instructor in Clinical Medicine. EDWARD W. DODD, Instructor in Clinical Medicine. EMIL A. FALK, Instructor in Clinical Medicine. DAVID GLUSKER, Instructor in Clinical Medicine. EDWIN T. HAUSER, Instructor in Clinical Medicine.

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Louis A. Hauser, Instructor in Clinical Medicine. MILTON HELPERN, Instructor in Clinical Medicine. EVELYN HOLT, Instructor in Clinical Medicine. LESLIE A. HOMRICH, Instructor in Clinical Medicine. SCOTT JOHNSON, Instructor in Clinical Medicine. CHARLES KAUFMAN, Instructor in Clinical Medicine. HENRY B. KIRKLAND, Instructor in Clinical Medicine. Berton Lattin, Instructor in Clinical Medicine. DOROTHEA LEMCKE, Instructor in Clinical Medicine. LEON I. LEVINE, Instructor in Clinical Medicine. Asa L. Lincoln, Instructor in Clinical Medicine. ROBERT M. LINTZ, Instructor in Clinical Medicine. JANE LOCKWOOD, Instructor in Clinical Medicine. VICTOR W. LOGAN, Instructor in Clinical Medicine. KIRBY MARTIN, Instructor in Clinical Medicine. ARTHUR M. MASTER, Instructor in Clinical Medicine. ANNIE P. McCombs, Instructor in Clinical Medicine. WILLIAM J. MERSEREAU, Instructor in Clinical Medicine. ELIZABETH NICHOLLS, Instructor in Clinical Medicine. Douglass Palmer, Instructor in Clinical Medicine. NORMAN PAPAE, Instructor in Clinical Medicine. Anna Platt, Instructor in Clinical Medicine. NORMAN PLUMMER, Instructor in Clinical Medicine. ADA C. REID, Instructor in Clinical Medicine. JOHN H. RICHARDS, Instructor in Clinical Medicine. H. McLeod Riggins, Instructor in Clinical Medicine. THERESA SCANLAN, Instructor in Clinical Medicine. JOHN B. SCHWEDEL, Instructor in Clinical Medicine. AARON D. SPIELMAN, Instructor in Clinical Medicine. JOHN W. STICKNEY, Instructor in Clinical Medicine. EDWARD Tolstoi, Instructor in Clinical Medicine. MARIAN TYNDALL, Instructor in Clinical Medicine. JAMES H. WHALEY, Instructor in Clinical Medicine. STEPHEN WHITE, Instructor in Clinical Medicine. ALEXANDER H. WILLIAMSON, Instructor in Clinical Medicine. DAN H. WITT, Instructor in Clinical Medicine. IRVING S. WRIGHT, Instructor in Clinical Medicine. GEORGE J. YOUNG, Instructor in Clinical Medicine. Morris Zucker, Instructor in Clinical Medicine. DEAN CLARK, Assistant in Medicine. Constance Friess, Assistant in Medicine. THOMAS H. HAM, Assistant in Medicine. JAMES S. MANSFIELD, Assistant in Medicine. THEODORE W. OPPEL, Assistant in Medicine. CARL MUSCHENHEIM, Assistant in Medicine. WILLIAM P. THOMPSON, Assistant in Medicine. ADE T. MILHORAT, Research Fellow in Medicine.

#### NEUROLOGY

Foster Kennedy, Professor of Clinical Neurology.
Lewis D. Stevenson, Assistant Professor of Clinical Neurology.
S. Bernard Wortis, Instructor in Clinical Neurology.
Louis Hausman, Instructor in Clinical Neurology.
Aaron Bell, Instructor in Clinical Neurology.
Alfred H. Ehrenclou, Instructor in Clinical Neurology.
Peter G. Denker, Instructor in Clinical Neurology.

#### DERMATOLOGY

Hans J. Schwartz, Professor of Clinical Medicine.
J. Frank Fraser, Assistant Professor of Clinical Medicine.
Fielding L. Taylor, Associate in Clinical Medicine.
Ray H. Rulison, Associate in Clinical Medicine.
Arthur W. Grace, Instructor in Medicine.
Joseph Amersbach, Instructor in Clinical Medicine.
William M. Archer, Instructor in Clinical Medicine.
James R. Beard, Jr., Instructor in Clinical Medicine.
Andrew J. Gilmour, Instructor in Clinical Medicine.
John H. Harris, Instructor in Clinical Medicine.
George M. Lewis, Instructor in Clinical Medicine.
Julia V. Lichtenstein, Instructor in Clinical Medicine.
Henry D. Niles, Instructor in Clinical Medicine.
Mabel G. Silverberg, Instructor in Clinical Medicine.

## GENERAL MEDICINE

Students begin their course in medicine in the third quarter of the second year with a course in physical diagnosis under Professors Robinson and Stewart. They are introduced to this subject by means of lectures, demonstrations and practical work on normal subjects and patients. In the fourth quarter they spend two mornings a week with patients either on the wards or in the out-patient department. Their afternoons are devoted to the course in clinical pathology given by Dr. William J. Elser, Professor of Applied Pathology and Bacteriology.

During the first quarter of the third year lectures, clinics and practical demonstrations are given to the entire class in dermatology and syphilis, neuropathology and neurology. In each of the remaining three quarters of the year one-third of the class will spend all of its time on the wards as clinical clerks in medicine, for the most part at New York Hospital. However some of each group will be assigned to the Second Medical Division of Bellevue Hospital and their work will be in charge of Dr. Henry James Spencer, Director of the division. Clerks will be given cases suitable for complete study and will be expected to take histories, make physical examinations and perform the necessary laboratory tests. The bedside work will be supplemented by informal instruction, clinical pathological conferences, seminars, demonstra-

tions and formal clinics in which the students present their cases to the staff. There will be two clinics each week in medicine held from twelve to one o'clock in the college auditorium. These are intended for both third and fourth year students, but students taking their clerkships at Bellevue Hospital will not be required to attend on account of the distance between the two institutions.

The senior students will be divided into four groups with onequarter of the college year devoted to general medicine and the medical specialties. They will spend most of their time in the out-patient department and will be assigned to sections in general medicine and special clinics, such as neurology, dermatology and syphilis, diabetes, gastro-intestinal diseases, diseases of the circulatory system, diseases of the lung, endocrine diseases, hematology, etc. The practical work with patients will be supplemented by lectures, demonstrations and seminars.

During the summer months students will be given the opportunity of taking their third year clerkships or their fourth year work in the outpatient department and in this way have more free time for elective

work during the regular academic year.

NEUROLOGY. The Neurological Service of Bellevue Hospital under Dr. Foster Kennedy offers unusual opportunities for clinical study and special investigation. It consists of male and female wards for the study of medical and surgical neurology. In addition, the laboratory for experimental neurology under the direction of Dr. Wortis, and the laboratory for neuropathology under the direction of Dr. Stevenson, are integrated with the medical and surgical work. All these services are available for the instruction of graduate and undergraduate students. Arrangements regarding hours will be made later.

DERMATOLOGY AND SYPHILIS. There will be a large and active clinic at New York Hospital. Some of the beds in the medical wards will be

used for teaching purposes.

Instruction in dermatology and syphilology is given in the third and fourth years. No teaching is didactic; the cutaneous diseases are demonstrated on the living subject. Abundance of material for such instruction is available, and the student can thoroughly familiarize himself with the more common as well as with the rarer diseases of the skin by actual personal touch and observation. Attention is paid particularly to the diagnosis and etiology of skin diseases, but the general principles of therapeutics are fully discussed and their application to the individual case pointed out. Practical instruction is also given in the preparation and administration of the arsphenamins, in the technic of intravenous and intramuscular injections, lumbar puncture and the various forms of physical therapy.

## **ELECTIVE COURSES**

During 1933-1934 one-eighth of the class will always be free for elective work. It is planned to have a variety of courses available for these students. The policy of the department is to offer several

parallel courses by different instructors, so that students may make their own selections. Opportunities will be given in the special clinics devoted to the diseases of the circulatory system, of the lungs, of metabolism, neurology, syphilis and dermatology, hematology, arthritis, allergy and gastro-intestinal disorders. There will be a number of electives in general medicine on the wards and in the out-patient department. Arrangements are being made for special work in tuberculosis at the New York State Hospital for Incipient Tuberculosis under Dr. Bray.

It is hoped and expected that a large number of the students during their elective period will engage in research work either in the clinics or in the laboratories. Special arrangements must be made individually, but if a sufficient number of students are interested in any special

laboratory work regular courses can be organized.

## **OBSTETRICS AND GYNECOLOGY**

Henricus J. Stander, Professor of Obstetrics and Gynecology. George G. Ward, Professor of Clinical Obstetrics and Gynecology. Herbert F. Traut, Associate Professor of Obstetrics and Gynecology. James A. Harrar, Associate Professor of Clinical Obstetrics and Gynecology.

R. GORDON DOUGLAS, Assistant Professor of Obstetrics and Gyne-

cology.

C. Frederic Jellinghaus, Assistant Professor of Clinical Obstetrics and Gynecology.

HERVEY C. WILLIAMSON, Assistant Professor of Clinical Obstetrics and Gynecology.

Lucius A. Wing, Assistant Professor of Clinical Obstetrics and Gynecology.

JOHN F. McGrath, Assistant Professor of Clinical Obstetrics and Gynecology.

KATHERINE KUDER, Instructor in Obstetrics and Gynecology.

Andrew A. Marchetti, Instructor in Obstetrics and Gynecology. Charles M. McLane, Instructor in Obstetrics and Gynecology.

OGDEN F. CONKEY, Instructor in Clinical Obstetrics and Gynecology.

Lynn L. Fulkerson, Instructor in Clinical Obstetrics and Gynecology.
William H. Hawkins, Instructor in Clinical Obstetrics and Gynecology.
cology.

HOWARD S. McCandlish, Instructor in Clinical Obstetrics and Gyne-

cology

MEYER ROSENSOHN, Instructor in Clinical Obstetrics and Gynecology. KYLE B. STEELE, Instructor in Clinical Obstetrics and Gynecology. JOSEPH N. NATHANSON, Instructor in Clinical Obstetrics and Gynecology.

EDWARD H. DENNEN, Instructor in Clinical Obstetrics and Gyne-

cology.

ARTHUR V. GREELEY, Assistant in Obstetrics and Gynecology.

EMMETT K. MECHLER, Assistant in Obstetrics and Gynecology.

James B. Gulick, Assistant in Obstetrics and Gynecology.

G. Wilson Hunter, Assistant in Obstetrics and Gynecology.

Charles H. Nichols, Assistant in Obstetrics and Gynecology.

John B. Pastore, Assistant in Obstetrics and Gynecology.

Robert L. Craig, Assistant in Clinical Obstetrics and Gynecology.

Oscar Glassman, Assistant in Clinical Obstetrics and Gynecology.

John A. O'Regan, Assistant in Clinical Obstetrics and Gynecology.

Nelson B. Sackett, Assistant in Clinical Obstetrics and Gynecology.

Jacob T. Sherman, Assistant in Clinical Obstetrics and Gynecology.

Frank R. Smith, Assistant in Clinical Obstetrics and Gynecology.

Charles T. Snyder, Assistant in Clinical Obstetrics and Gynecology.

### I. THIRD YEAR

Course 1. The Theory and Principles of Obstetrics and Gynecology. This course consists of lectures and demonstrations covering the anatomy and physiology of the female reproductive system; the physiology and pathology of pregnancy, labor, and puerperium; and the etiology, pathology, and diagnosis of the diseases of the pelvic structures.

Wednesday and Friday, 2-3 р. м.; first, second, and third quarters, to

the whole class. Professors Stander, Traut, and Douglas.

Course 2. Practical Instruction. The courses offered are (a) palpation; (b) pelvic examination; (c) manikin exercises; (d) obstetrical and gynecological pathology; (e) obstetrical and gynecological bacteriology and isolation technic; (f) demonstrations; (g) dispensary clinics.

To one-third of the class, instruction will be given every morning

from 9-12, except Saturday, throughout one quarter.

Course 3. Ward Rounds. Monday, Wednesday, Friday, 9-10 A. M. Professor Stander and staff.

Course 4. Obstetrical and Gynecological Clinics. Tuesdays, 12-1 p. m., throughout the year. Professors Stander, Ward, Harrar, Jellinghaus, Williamson, McGrath, Traut, and Douglas.

Total hours, 188.

#### II. FOURTH YEAR

Course 1. Obstetrical and Gynecological Clinics. Tuesday, 12-1 p. m., throughout the year, together with the third year class.

Course 2. Major Practical Obstetrics and Gynecology. This course comprises practical work in obstetrics and gynecology and is the sequel to the theoretical instruction offered to the third year students. Each student will live in the Woman's Clinic and the Berwind Clinic for a period of two months, during which time he will act as a clinical assistant in the obstetrical and gynecological departments, hospital wards, and delivery and operating rooms. He will be provided with sleeping accommodations, but not with board.

The practical work includes the prenatal care of many patients, attending them in labor, their delivery, as well as following them throughout the course of the puerperium. Facilities will also be provided for the student to examine gynecological patients, and to follow these patients through diagnostic and therapeutic procedures.

Two months' residence throughout the quarter. Minimum, 344 hours. Because of the nature of the service, night and holiday work is

required.

## **ELECTIVE COURSES**

Course 1. Practical Obstetrics and Gynecology. A certain number of students will be accepted for periods of one month to serve as assistants in the clinic.

Course 2. To a limited number of students elective research courses will be offered in the chemical, pathological, and bacteriological laboratories of the department throughout the year.

## **PEDIATRICS**

OSCAR M. SCHLOSS, Professor of Pediatrics. LYNNE A. HOAG. Associate Professor of Pediatrics. Samuel Z. Levine, Associate Professor of Pediatrics. Jesse F. Sammis, Assistant Professor of Clinical Pediatrics. Louis C. Schroeder, Assistant Professor of Clinical Pediatrics. PHILIP M. STIMSON, Assistant Professor of Clinical Pediatrics. MAY G. WILSON, Assistant Professor of Clinical Pediatrics. THOMAS C. GOODWIN, Associate in Pediatrics. MILTON J. SENN, Associate in Pediatrics. ARTHUR F. ANDERSON, Associate in Clinical Pediatrics. ROBERT O. DuBois, Associate in Clinical Pediatrics. LUDWIG SCHOENTHAL, Associate in Clinical Pediatrics. CARL H. SMITH, Associate in Clinical Pediatrics. WILLIAM S. ANDERSON, Instructor in Pediatrics. HARRY GORDON, Instructor in Pediatrics. HELEN HARRINGTON, Instructor in Pediatrics. VERNON W. LIPPARD, Instructor in Pediatrics. MARJORIE A. WHEATLEY, Instructor in Pediatrics. M. BERNARD BRAHDY, Instructor in Clinical Pediatrics. Frederick C. Hunt, Instructor in Clinical Pediatrics. CHARLES H. O'REGAN, Instructor in Clinical Pediatrics. WILL C. SPAIN, Instructor in Clinical Pediatrics. T. Durland Van Orden, Instructor in Clinical Pediatrics. THOMAS E. WALDIE, Instructor in Clinical Pediatrics. MABEL H. GROSVENOR, Assistant in Pediatrics. JOHN E. GUNDY, Assistant in Pediatrics. HEDWIG KOENIG, Assistant in Pediatrics. WILLIAM R. SANDUSKY, Assistant in Pediatrics. MILTON I. LEVINE, Assistant in Clinical Pediatrics. ELEANOR MARPLES, Research Assistant in Pediatrics. BENJAMIN McL. Spock, Research Assistant in Pediatrics.

THIRD YEAR. A clinical lecture once a week throughout the entire school year, presenting cases illustrating diseases peculiar to early life. Groups of students are assigned to the wards where they are given opportunity to examine sick infants and are given instruction in diagnosis and treatment. Instruction in contagious diseases is given at the Willard Parker Hospital. Total hours, 115.

FOURTH YEAR. Groups of students are on duty in the out-patient department. Here they gain experience in history taking, physical examination, and treatment. Total hours, 68.

## **ELECTIVE COURSES**

Elective students serve as clinical clerks on the wards and are on duty continuously for a period of one month.

## **PSYCHIATRY**

GEORGE S. AMSDEN, Professor of Psychiatry. MORTIMER W. RAYNOR, Professor of Clinical Psychiatry. GEORGE H. KIRBY, Professor of Clinical Psychiatry. PHYLLIS GREENACRE, Professor of Clinical Psychiatry. GEORGE W. HENRY, Associate Professor of Psychiatry. HARRY M. TIEBOUT, Associate Professor of Psychiatry. JOSEPH P. EIDSON, Assistant Professor of Clinical Psychiatry. SMILEY BLANTON, Assistant Professor of Clinical Psychiatry. CARL A. BINGER, Assistant Professor of Clinical Psychiatry. CHARLES D. RYAN, Instructor in Psychiatry. WILLIAM H. DUNN, Instructor in Psychiatry. Norvelle C. LaMar, Instructor in Psychiatry. VALER BARBU, Instructor in Psychiatry. B. MILDRED EVANS, Instructor in Psychiatry. George S. Stevenson, Instructor in Clinical Psychiatry. CHARLES G. McGAFFIN, Instructor in Clinical Psychiatry. MICHAEL P. LONERGAN, Instructor in Clinical Psychiatry. EDWARD B. ALLEN, Instructor in Clinical Psychiatry. HILDA WOOD EIDSON, Instructor in Clinical Psychiatry. MURIEL IVIMEY, Instructor in Clinical Psychiatry. GERALD R. JAMEISON, Instructor in Clinical Psychiatry. ELIZABETH KILPATRICK, Instructor in Clinical Psychiatry. S. STANLEY KING, Instructor in Clinical Psychiatry. LESLIE E. LUEHRS, Instructor in Clinical Psychiatry. George E. Sprague, Instructor in Clinical Psychiatry. HANS Syz, Instructor in Clinical Psychiatry. JAMES H. WALL, Instructor in Clinical Psychiatry. R. RALPH HARLOW, Assistant in Clinical Psychiatry. JOEL M. HILL, Assistant in Clinical Psychiatry. CHARLOTTE MUNN, Assistant in Clinical Psychiatry. ALEXANDER J. MURCHISON, Assistant in Clinical Psychiatry. BETTINA WARBURG, Assistant in Clinical Psychiatry. JOHN A. P. MILLET, Fellow in Psychiatry.

Instruction in Psychiatry is given in each of the four college years. In the first year thirty-three hours are devoted to psychobiology. This course seeks to acquaint the student with those aspects of comparative psychology and of the psychology of the individual which are not only of psychiatric importance, but which are equally important for an understanding of the individual in an approach from any other medical point of view. The focusing point of the course is the study of the

personality.

In the second year a course of 24 hours is devoted to psychopathology. This course is so planned as to bring before the student those tendencies in the race and the individual which lend themselves to faulty adjustment and those specific mechanisms by which maladjustment is favored and hindered. Special attention is given to manifestations of emotional and mental difficulties which may under circumstances arise in the average individual and in persons suffering from any form of somatic disorder or disease. The object of the course is to provide the student with a broad conception of personality and behavior deviation, as well as to serve as an introduction to psychiatry. Instruction in methods of examination and history taking is also provided.

In the third year each student serves 63 hours in the in-patient division of the psychiatric clinic of the New York Hospital. This department, newly established for the investigation, prevention, and curative treatment of emotional and mental disorders, is a private hospital with a capacity of 110 beds and forms one unit of the New York Hospital-Cornell Medical College Association. As far as possible only one student is assigned to an instructor for whom he acts as clinical clerk. The clinical service includes an opportunity to observe and study manifestations not only in adults, but in the pre-school, the

pre-adolescent, and the adolescent individual.

Instruction during the fourth year is given chiefly in the out-patient division of the psychiatric clinic of the New York Hospital. Here the instructor also devotes himself to a single student who serves as far as possible as an assistant. The purpose is to give the student an opportunity to observe and take part in a type of psychiatric practice equivalent to that carried on by a sound private practitioner of psychiatry. Some instruction is given at Bloomingdale Hospital at White Plains, New York, a private psychiatric hospital which is a part of the Society of the New York Hospital. Opportunity is afforded also in both the third and fourth years to become acquainted with special forms and degrees of intensity of psychosis in the extensive clinical service of the Manhattan State Hospital, Ward's Island, New York City.

A special clinical demonstration with summary discussions is held every week for the fourth year class. Elective courses are provided for undergraduates during the fourth year. Graduate instruction is being planned, based upon a comprehensive plan for a prolonged and thor-

ough training in psychiatry. 82 hours.

## SURGERY

George J. Heuer, Professor of Surgery. Joshua E. Sweet, Professor of Experimental Surgery. N. CHANDLER FOOT, Professor of Surgical Pathology. CHARLES E. FARR, Professor of Clinical Surgery. JOHN A. HARTWELL, Professor of Clinical Surgery. Burton J. Lee, Professor of Clinical Surgery. HENRY H. M. LYLE, Professor of Clinical Surgery. EUGENE H. Pool, Professor of Clinical Surgery. POL N. CORYLLOS, Professor of Clinical Surgery. WILLIAM DEW. ANDRUS, Associate Professor of Surgery. RALPH F. Bowers, Assistant Professor of Surgery. RICHARD H. MEAGHER, Assistant Professor of Surgery. SEWARD ERDMAN, Assistant Professor of Clinical Surgery. Guilford S. Dudley, Assistant Professor of Clinical Surgery. JOHN C. A. GERSTER, Assistant Professor of Clinical Surgery. Russel H. Patterson, Assistant Professor of Clinical Surgery. MORRIS K. SMITH, Assistant Professor of Clinical Surgery. BYRON STOOKEY, Assistant Professor of Clinical Surgery. JOHN A. VIETOR, Assistant Professor of Clinical Surgery. . Herbert Conway, Instructor in Surgery. Frank N. Glenn, Instructor in Surgery. HERBERT BERGAMINI, Instructor in Clinical Surgery. JACOB BUCKSTEIN, Instructor in Clinical Radiology. HENRY S. F. COOPER, Instructor in Clinical Surgery. Nelson W. Cornell, Instructor in Clinical Surgery. PAUL A. DINEEN, Instructor in Clinical Surgery. JOHN H. GARLOCK, Instructor in Clinical Surgery. A. LeRoy Johnson, Instructor in Clinical Surgery (Dentistry). JOSEPH E. J. KING, Instructor in Clinical Surgery. LEILA C. KNOX, Instructor in Surgical Pathology. Frank J. McGowan, Instructor in Clinical Surgery. EDWARD W. SAUNDERS, Instructor in Clinical Surgery, and Given Fellow in Surgical Research. Rufus E. Stetson, Instructor in Clinical Surgery. Francis A. Sutherland, Instructor in Clinical Surgery. JOHN E. SUTTON, JR., Instructor in Clinical Surgery. Preston A. Wade, Instructor in Clinical Surgery. W. Morris Weeden, Instructor in Clinical Surgery. ROBERT A. Wise, Instructor in Clinical Surgery. Frank C. Yeomans, Instructor in Clinical Surgery. COURTNEY C. BISHOP, Assistant in Surgery. RICHARD D. BULLARD, Assistant in Surgery. WILLIAM A. COOPER, Assistant in Surgery. George R. Dunlop, Assistant in Surgery. Merton L. Griswold, Assistant in Surgery. FLOYD H. Bragden, Assistant in Surgery.

CRANSTON W. HOLMAN, Assistant in Surgery.
L. G. KENDALL, Assistant in Surgery.
EDMUND G. LAIRD, Assistant in Surgery.
WILLIAM DE G. MAHONEY, Assistant in Surgery.
BRONSON S. RAY, Assistant in Surgery.
ROSE ANDRÉ, Assistant in Clinical Surgery.
GEORGE L. BIRNBAUM, Assistant in Clinical Surgery.
JOHN S. DAVIS, Assistant in Clinical Surgery.
WADE DULEY, Assistant in Clinical Surgery.
ROBERT K. FELTER, Assistant in Clinical Surgery.
ELLA M. HEDIGER, Assistant in Clinical Surgery.
D. REES JENSEN, Assistant in Clinical Surgery.

#### OPHTHALMOLOGY

Bernard Samuels, Professor of Clinical Surgery.
MILTON L. Berliner, Instructor in Clinical Surgery.
Truman L. Boyes, Instructor in Clinical Surgery.
Charles A. Drake, Instructor in Clinical Surgery.
Harry Eggers, Instructor in Clinical Surgery.

#### ORTHOPEDIC SURGERY

CHARLTON WALLACE, Professor of Clinical Surgery. IRVIN BALENSWEIG, Instructor in Clinical Surgery. KRISTIAN G. HANSSON, Instructor in Clinical Surgery. CHARLES L. PLUNKETT, Instructor in Clinical Surgery.

## OTOLARYNGOLOGY

ARTHUR PALMER, Assistant Professor of Clinical Surgery; Acting Head, Department of Otolaryngology. GERVAIS W. McAuliffe, Assistant Professor of Clinical Surgery. JACOB APPLEBAUM, Instructor in Clinical Surgery. EMMETT C. FITCH, Instructor in Clinical Surgery. THOMAS J. GARRICK, Instructor in Clinical Surgery. Russell C. Grove, Instructor in Clinical Surgery. S. FARRAR KELLEY, Instructor in Clinical Surgery. JAMES O. MACDONALD, Instructor in Clinical Surgery. THOMAS J. MULCAHY, Instructor in Clinical Surgery. EDGAR M. POPE, Instructor in Clinical Surgery. WILLIAM H. AYRES, Assistant in Clinical Surgery. ANNE S. BELCHER, Assistant in Clinical Surgery. HERBERT GRAEBNER, Assistant in Clinical Surgery. ALBERT G. RAPP, Assistant in Clinical Surgery. FERNAND VISZTREICH, Assistant in Clinical Surgery.

## UROLOGIC SURGERY

EDWARD L. KEYES, Professor of Clinical Surgery. A. RAYMOND STEVENS, Associate Professor of Clinical Surgery. HOWARD S. JECK, Assistant Professor of Clinical Surgery. SURGERY 81

MIGUEL ALVAREZ, Instructor in Clinical Surgery.
BENJAMIN S. BARRINGER, Instructor in Clinical Surgery.
WILLIAM R. DELZELL, Instructor in Clinical Surgery.
THOMAS P. BURRUS, Assistant in Clinical Surgery.
ANNE E. KUHNER, Assistant in Clinical Surgery.
EDWARD JACOBS, Assistant in Clinical Surgery.
RUSSELL S. FERGUSON, Assistant in Clinical Surgery.
ALLISTER M. McLellan, Assistant in Clinical Surgery.
LEO MARQUITH, Assistant in Clinical Surgery.
PETER J. RIABOFF, Assistant in Clinical Surgery.
H. E. S. ROOT, Assistant in Clinical Surgery.
WENDELL J. WASHBURN, Assistant in Clinical Surgery.

## GENERAL SURGERY

I. THIRD YEAR. The teaching of surgery begins in the first quarter of the third year during which time the students have formal exercises in surgical pathology and the surgical specialties as an introduction to ward work in general surgery, urology, orthopedics, ophthalmology and otolaryngology. During this quarter the entire class attends a course illustrating the principles of operative surgery. This consists of a series of exercises carried out by the students upon living animals, emphasizing surgical cleanliness, aseptic technic, the control of hemorrhage, the healing of wounds, anaesthesia, etc. The exercises are supplemented by reading, conferences, and pathological demonstrations.

In the following three quarters each third of the class in rotation spends one quarter in the surgical wards in the capacity of clinical clerks. During this period the student gains experience in history taking, physical examination and routine laboratory examinations, and is brought into contact with patients with general surgical, urological, orthopedic, ophthalmological and otolaryngological conditions. The routine teaching consists of ward visits in general surgery and the surgical specialties, together with assigned reading and conferences. In this teaching the facilities of Second Surgical Division, Bellevue Hospital, St. Luke's, Memorial, St. Mary's, and other special hospitals are utilized, in addition to those of the New York Hospital. Total hours, 417 including surgical pathology (36) and surgical specialties.

II. FOURTH YEAR. Each student spends one quarter in the outpatient department of the surgical service and the allied specialties. The morning hours are devoted to the surgical clinic and the afternoon hours to the special clinics of urology, orthopedics, ophthalmology and otolaryngology, with the exception of a two-week period during which the student is assigned to the operating room and is given intensive instruction in anesthesia. During this quarter the student is also expected to follow in the wards of the hospital those patients admitted from the out-patient department. The routine teaching consists of conferences, clinics, and assigned reading.

A surgical clinic is held one day a week at the noon hour for the students of the third and fourth years. Total hours, 268.

### OPHTHALMOLOGY

During the first quarter of the third year the entire class is instructed in the laboratory in the microscopy of the eye by Dr. Samuels. In addition to normal histology, the pathology of such important diseases as uveitis, glaucoma, intra-ocular tumors, tuberculosis, injuries and simple ophthalmia are covered. During this quarter also the entire class receives a series of formal exercises in ophthalmology as a further introduction to their clinical work supplemented by exercises on the wards and in the out-patient department.

During the fourth year the student is assigned for a period of time to the ophthalmological out-patient department and in addition has the opportunity of taking further work in this subject during his elective

period.

# ORTHOPEDIC SURGERY

During the first quarter of the third year there are a number of formal exercises in this subject, which serve as an introduction to the clinical work. These are supplemented by the presentation of interesting cases on the wards and in the out-patient department during the remainder of the third and fourth years.

## OTOLARYNGOLOGY

In the first quarter of the third year students receive instruction in the examination of the ear, nose, and throat. Anatomy of the head is reviewed and exercises in instrumentation are given. Clinical lectures, illustrated by lantern slides and by the presentation of cases, are also given during this period. In addition the student is assigned for a period to the otolaryngological out-patient department and has the opportunity to spend further time in this subject during his elective term.

## UROLOGY

A number of clinical lectures in this subject are given during the first quarter of the third year, and during the remainder of this and the following year the work is supplemented by the presentation of cases in the wards and the out-patient department.

In the fourth year the student is assigned for a period to the urological out-patient department, and has further opportunity to pursue

this subject during the elective period.

#### **ELECTIVE COURSES**

Courses are offered in advanced general surgery, surgical pathology, experimental surgery, neuro-surgery, thoracic surgery, and in the specialties of surgery; urology, orthopedic surgery, ophthalmology and otolaryngology. Elective work combined with medicine is also offered in special clinics in the out-patient department. More detailed

information regarding these electives may be had by consulting the head of the surgical department.

## COURSE OFFERED TO SPECIAL STUDENTS

A special course in surgery based upon the resident system is offered to a limited number of physicians who are graduates of approved medical schools and who have completed one year's interneship or its equivalent in an approved hospital. Detailed information regarding this course will be furnished on request by the head of the surgical department.

## PUBLIC HEALTH AND PREVENTIVE MEDICINE

JOHN C. TORREY, Professor of Epidemiology and Acting Head of the Department of Public Health and Preventive Medicine.

MORTON C. KAHN, Assistant Professor of Public Health and Preventive Medicine.

WALTER C. KLOTZ, Assistant Professor of Public Health and Preventive Medicine.

THOMAS T. MACKIE, Research Associate in Public Health and Preventive Medicine.

RALPH W. NAUSS, Instructor in Public Health and Preventive Medicine. ELIZABETH MONTU, Research Assistant in Public Health and Preventive Medicine.

This is a comprehensive course dealing with the fundamental factors concerned in the origin, increase and control of communicable and non-communicable diseases. It is intended to familiarize the student with the opportunities for disease prevention through public health organizations and in private practice, both in urban and rural communities. Among the subjects discussed in a series of lectures are environmental control, sources and modes of infection, specific and non-specific prophylaxis, vital statistics and public health administration. Many of these subjects are illustrated by laboratory and field demonstrations. Minimum, 96 hours.

Instruction in the clinical aspects of preventive medicine is also given in connection with the courses in medicine, surgery, obstetrics, pedi-

atrics, and the specialties.

#### **ELECTIVE COURSES**

Course 1. Epidemiology. A study of the factors and principles concerned in the origin, spread and abatement of the more important communicable diseases as illustrated by past and, when possible, current outbreaks. Collection of epidemiological data and statistical analyses. Conferences. Hours to be arranged.

Course 2. Medical Zoology and Parasitology. This course is intended to supplement and extend the required work in this field.

Diagnosis, life histories of parasites and their vectors, and control measures are considered. Laboratory work and conferences. Hours to be arranged.

## RADIOLOGY

HARRY M. IMBODEN, Professor of Clinical Radiology.
JOHN R. CARTY, Associate Professor of Radiology.
CORNELIUS V. KILBANE, Assistant Professor of Radiology.
SYDNEY WEINTRAUB, Assistant Professor of Clinical Radiology.
E. FORREST MERRILL, Instructor in Clinical Radiology.
STEPHEN WHITE, Instructor in Clinical Radiology.
IRVING SCHWARTZ, Instructor in Clinical Radiology.

### RADIOLOGY AND RADIOTHERAPY

This course is planned to give an introduction to the fundamentals of radiology in order that the student may more intelligently utilize this aid to diagnosis and therapy. The course consists of didactic lectures and section work. Emphasis will be laid on instruction given in connection with the clinical findings. New methods in diagnosis and therapy will be discussed, and the limitations and scope of the particular method will be stressed.

The lectures will begin with a consideration of the principles of the physics involved, followed by a discussion of the findings in the

various systems on the fluoroscopic screen and film.

Radiotherapy will be discussed, particularly the indications for and limitations of this method of treatment in various pathological conditions. Special emphasis will be laid on the use of x-ray therapy as a diagnostic measure. Attention will also be paid to the use of x-ray therapy in non-malignant conditions.

# MEDICAL JURISPRUDENCE

An elective course of lectures is offered to members of the fourth year class in the third and fourth quarters of the senior year. The course covers autopsy technique in medico-legal cases, the autopsy protocol, and laboratory methods for establishing the proof of the cause of death in cases of accident, suicide, and homicide; it deals with the forensic aspect of the subject in cases of indemnity, liability, and criminal prosecution.

## MILITARY SCIENCE AND TACTICS

THOMAS G. TOUSEY, Major, M.C., U.S. Army, Professor of Military Science and Tactics.

The elective course in military science and tactics provides an opportunity for those students who desire to broaden their training to include a knowledge of military medicine and surgery and preventive medicine. The course is divided into a basic and an advanced course. The basic course is given during the first and second college years and

includes subcourses in military policy, organization and tactics, organization and functions of the Medical Department of the Army, first

aid, hygiene, and the sanitation of camps.

The advanced course is given during the third and fourth college years. Students electing to take the advanced course sign a contract with the Federal Government that they will complete the course and are paid, while taking the course, at the rate of about \$7.50 a month during the college session and 70 cents a day during the six weeks Summer Training Camp which all advanced course students are required to attend. The advanced course includes the following subjects: the spread and control of communicable diseases, water purification, waste disposal, war medicine, war surgery, chemical warfare, aviation medicine, hospitals, hospitalization, duties of Reserve Officers, and mobilization duties.

Upon receiving the degree of Doctor of Medicine, those students who have successfully completed the advanced course in Military Science and Tactics are offered commissions as First Lieutenants in the Medical Section, Officers' Reserve Corps of the Army of the United States. Members of the second-year advanced course are eligible to apply for

interneship in United States Army general hospitals.

# FIRST-YEAR SCHEDULE

1933-34

# FIRST TRIMESTER

SEPT. 25-DEC. 22

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9-10						
10-11	Anatomy	Anatomy	Anatomy	Anatomy	Anatomy	Anatomy
11-12						
I 2-I		Biochemistry		Biochemistry	Biochemistry	
2-3			Histology	Biochemistry		
3-4	Histology	Anatomy	Tristology	Biochemistry	Histology	
4-5			Mil. Sci.*	(Spec. Lect.)		

# SECOND TRIMESTER

# Jan. 3-March 10

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9-10		anat.		Biochemistry		Bunt
10-11	Histology	Histology	Histology	Anatomy	Histology	Histology '
11-12	()		(		-	
12-1	Anatomy	Biochemistry	Anatomy	Biochemistry	Anatomy	
2-3			Anatomy	Biochemistry		
3-4	Anatomy	Biochemistry	Tinacomy	Biochemistry	Anatomy	
4-5			Mil. Sci.*	(Spec. Lect.)		
	1		1		1	

# THIRD TRIMESTER

# March 12-May 26

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9-10				Psychobiology		
10-11	Biochemistry	Neuro- anatomy	Biochemistry	Neuro- anatomy		Neuro- anatomy
11-12					Biochemistry	
I 2-I		Physiology		Physiology	Physiology	Physiology
2-3	Psychobiology		Psychobiology			
3-4	Library Lectures**	Physiology		Physiology	Physiology	
4-5			Mil. Sci.*	(Spec. Lect.)		

<sup>\*</sup>Elective. (-)When scheduled. \*\*Three lectures only.

# SECOND-YEAR SCHEDULE 1933-34

			1933-34			
FIRST Qu	JARTER				SEPT. 2	5-Nov. 21
Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9-10	Physiology	Physiology	Physiology	Physiology	Physiology	Mil. Sci.*
10-11						
11-12	Physiology	Pharmacology	Physiology	Pharmacology	Physiology	Pharmacology
12-1						
2-3						
3-4	Bacteriology		Bacteriology	,	Bacteriology	
4-5				(Spec. Lect.)		
SECOND	QUARTER	· · · · · · · · · · · · · · · · · · ·			Nov. 2	22-Jan. 31
Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9-10						
10-11	Pathology	Pharmacology	Pathology	Pharmacology	Pathology	Pathology
11-12						
12-1				Mil. Sci.*		
2-3						
3-4	Bacteriology		Bacteriology		Bacteriology	
4-5				(Spec. Lect.)		
THIRD Q	UARTER			4	Fев. 1-	MARCH 29
Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9-10			<del></del>			8
10-11	Pathology	Pathology	Pathology	Pathology	Pathology	Pathology
11-12						
12-1						
2-3						
3-4	Physical Diagnosis		Physical Diagnosis	Mil. Sci.*	Physical Diagnosis	
4-5				(Spec. Lect.)		
Fourth	Ouarter	1 1			APRIL	2-May 26
Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9-10						
10-11	Physical Diagnosis**		Physical Diagnosis**	Physical Diagnosis**	Topographical Anatomy	Physical Diagnosis**
11-12		Mil. Sci.*				
12-1	Psychopath.	Clin. Path.	Psychopath.	Clin. Path.	Psychopath.	
2-3	01: 1	01: 1	Clinian	Clinian	Clinical	
	Clinical Pathology	Clinical Pathology	Clinical Pathology	Clinical Pathology	Clinical Pathology	
3-4				(Spec Toot)		
4-5				(Spec. Lect.)		

<sup>\*</sup>Elective.
(-)When scheduled.
\*\*Group A, Monday and Thursday; Group B, Wednesday and Saturday. Alternate periods for each group free.

# THIRD-YEAR SCHEDULE

# 1933-34

# FIRST QUARTER

SEPT. 25-Nov. 21

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
0-10	Surgical Pathology 4 weeks Neuro- pathology	Operative Surgery	Surgical Pathology 4 weeks Neuro- pathology	Pediatrics Inf. Feeding	Surgical Pathology 4 weeks Neuro- pathology	Urology
11-12	4 weeks**		4 weeks**		4 weeks**	
12-1	Medicine	Ob. and Gyn.	Pediatrics	Medicine	Surgery	
2-3	Radiology		Ob. and Gyn.	Otolarvn-	Ob. and Gyn.	
3-4	Dermatol'v	Ophthalmol'y	Mil. Sci.*	gology	Orthopedics	
4-5	Definator y	Ophthalmol. Pathology		(Spec. Lect.)	Orthopedics	

# SECOND, THIRD, AND FOURTH QUARTERS

Nov. 22	-Jan. 31	FE	B. I-MARC	н 29	APRIL 2-MAY 26	
Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9-10	Group	A: Medicine (2) B: Surgery (2) C: Obstetrics,	, Obstetrics, Pe	diatrics, Psych	iatry (3), Medic	eine (4)
10-11		The figure in	parenthesis ind subject is	icates the quart to be taken	er in which the	
11-12						
12-1	Medicine	Ob. and Gyn.	Pediatrics	Medicine	Surgery	Mil. Sci.*
2-3			Ob. and Gyn.t		Ob. and Gyn.†	
3-4		_	Groups	as above		
4-5	Clin. Path. Conference			(Spec. Lect.)		
#Flectiv	0					

<sup>\*</sup>Elective.
(-)When scheduled.
\*\*During this period two hours willibe devoted to Neuropathology and one hour to Clinical Neurology.

<sup>\*</sup>Elective.
(-)When scheduled.
†Second and Third Quarters only.

# THIRD-YEAR CLASS

# Detailed Schedules for Obstetrics, Pediatrics, and Psychiatry

## SCHEDULE I

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9-10					Obstetrics	
10-11	Obst	etrics and Gyne	cology	Pediatrics	and Gynecology	Psychiatry
11-12					- Theology	
12-1	Medicine	Ob. and Gyn.	Pediatrics	Medicine	Surgery	Mil. Sci.*
2-3	Pediatrics		Ob. and Gyn.†		Ob. and Gyn.†	
3-4		Psychiatry	Pediatrics	Psychiatry	Pediatrics	
45	Clin. Path. Conference			(Spec. Lect.)		

## SCHEDULE II

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday			
9-10									
10-11		Pediatrics							
11-12									
12-1	Medicine	Ob. and Gyn.	Pediatrics	Medicine	Surgery	Mil. Sci.*			
2-3	Psychiatry		Ob. and Gyn.†	Pediatrics	Ob. and Gyn.†				
3-4	Clin Doub	Pediatrics	Develiates	rediatrics	Psychiatry				
4-5	Clin. Path. Conference		Psychiatry	(Spec. Lect.)	Psychiatry				

Group C-1: Schedule I, Nov. 22-Dec. 22; Schedule II, Jan. 3-Jan. 31. Group C-2: Schedule II, Nov. 22-Dec. 22; Schedule I, Jan. 3-Jan. 31.

Group B-1: Schedule I, Feb. 1-March 1; Schedule II, March 2-March 29, Group B-2: Schedule II, Feb. 1-March 1; Schedule I, March 2-March 29.

Group A-1: Schedule I, April 2-April 28; Schedule II, April 30-May 26. Group A-2: Schedule II, April 2-April 28; Schedule I, April 30-May 26.

<sup>\*</sup>Elective.
(-)When scheduled.
†Second and Third Quarters only.

# FOURTH-YEAR SCHEDULE

# FIRST AND SECOND QUARTERS

# 1933-34

# SEPT. 25-Nov. 21

Nov. 22-Jan. 31

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9-10	Group A: Medicine (1), Obstetrics and Gynecology (2) Group B: Surgery (1), Pediatrics, Psychiatry, Elective (2) Group C: Pediatrics, Psychiatry, Elective (1), Surgery, (2)					
10-11	-		nd Gynecology renthesis indicate			
11-12			he subject is to be			
12-1	Medicine	Ob. and Gyn.	Psychiatry	Medicine	Surgery	
2-3			Groups as above	:		
3-4	Clin. Path.					
4-5			Public Health	(Spec. Lect.)	Public Health	
5-6		Mil. Sci.*				

# THIRD AND FOURTH QUARTERS

Feb. 1-March 29

APRIL 2-MAY 26

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9-10		Group A: Pedia Group B: Obste	etrics and Gyn	ecology (3), N	dedicine (4)	4)
10-11		Group C: Medi Group D: Surg	cine (3), Obstery (3), Pedia	etrics and Gyr trics, Psychiat	necology (4) ry, Elective (	4)
11-12	-		e in parenthesis which the subject			
12-1	Medicine	Ob. and Gyn.	Psychiatry	Medicine	Surgery	
2-3			Groups a	as above		
3-4		_				
4-5	Clin. Path. Conference	Med. Juris.*		(Spec. Lect.)		
5-6		Mil. Sci.*				

## FOURTH-YEAR CLASS

# DETAILED SCHEDULE FOR PEDIATRICS AND PSYCHIATRY

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
0-11				D. 47		Public Health 1st and 2nd
	Pediatrics		Psychiatry	Pediatrics		quarters Pediatrics
11-12						3rd and 4th quarters
12-1	Medicine   (	Ob. and Gyn.	Psychiatry	Medicine	Surgery	
2-3	Psvcl	niatry				
3-4			Pediatrics	Psycl	hiatry	-0
4-5	Clin. Path. Conference (Med. Juris.*)		Public Health‡	(Spec. Lect.)	Public Health‡	
5-6		Mil. Sci.*				

Group C-1: Pediatrics and Psychiatry, Sept. 26-Oct. 23; Electives, Oct. 24-Nov. 21. Group C-2: Electives, Sept. 26-Oct. 23; Pediatrics and Psychiatry, Oct. 24-Nov. 21.

Group B-1: Pediatrics and Psychiatry, Nov. 22—Dec. 22; Electives, Jan. 3-31. Group B-2: Electives, Nov. 22—Dec. 22; Pediatrics and Psychiatry, Jan. 3-31.

Group A-1: Pediatrics and Psychiatry, Feb. 1-Mar. 1; Electives, Mar. 2-29. Group A-2: Electives, Feb. 1-Mar. 1; Pediatrics and Psychiatry, Mar. 2-29.

Group D-1: Pediatrics and Psychiatry, Apr. 2-Apr. 28; Electives, Apr. 39-May 26. Group D-2: Electives, Apr. 1-Apr. 28; Pediatrics and Psychiatry, Apr. 30-May 26.

\*Elective.
(-)When scheduled.
‡First and Second Quarters only.

## **FEES**

Matriculation Fee	\$10
This fee is required of every student upon entrance into	
Cornell University. It must be paid at the time of regis-	
tration.	
	61.50
Tuition Fee	\$150
Tuition Fee	
dents registered in the Graduate School.	
Administration Fee	\$25
This fee is to be paid by all students registered in the	Ψ
Color Color This is the control of the color	
Graduate School. It is payable in installments of \$12.50	
semi-annually in advance.	
Graduation Fee	\$20
This fee is required at least ten days before the degree	*
is to be conferred, of every candidate for an advanced	
is to be contened, of every candidate for an advanced	
degree. The fee will be returned if the degree is not con-	
ferred.	
Contribution of the desired from the second of the second	.:.:

Certain classes of students are exempt from payment of the tuition fee. They are:

- (1) Graduate students holding appointments as University Fellows or Graduate Scholars.
- (2) Graduate students holding appointments as assistants and instructors and having their major studies in the college or line of work in which they are instructing, are exempt only from the payment of tuition fees in the department in which they are employed to give instruction. Members of the instructing staff who take work for which they must pay tuition are required to pay in proportion to the amount of work for which they are registered.

## FACULTY OF MEDICINE AT ITHACA

LIVINGSTON FARRAND, A.B., M.D., L.H.D., LL.D., President.

ABRAM TUCKER KERR, B.S., M.D., Secretary of the Medical College at Ithaca, Professor of Anatomy.

SIMON HENRY GAGE, B.S., Professor of Histology and Embryology,

Emeritus.

Benjamin Freeman Kingsbury, Ph.D., M.D., Professor of Histology and Embryology.

James Batcheller Sumner, A.M., Ph.D., Professor of Biochemistry. Howard Scott Liddell, A.M., Ph.D., Professor of Physiology.

James Wencelas Papez, A.B., M.D., Assistant Professor of Anatomy and Neurology.

\*Howard Bernhardt Adelmann, A.M., Ph.D., Assistant Professor of

Histology and Embryology.

Joseph Alma Dye, A.B., Ph.D., Assistant Professor of Physiology. George Harrison Maughan, A.M., Ph.D., Instructor in Physiology. David Birney Hand, A.B., Ph.D., Instructor in Biochemistry.

THEODORE SNOOK, B.S., Ph.D., Instructor in Histology and Embryology. Andrew J. Ramsay, A.B., Instructor in Histology and Embryology. STACEY F. HOWELL, A.B., M.S., Instructor in Biochemistry.

RUTH McMillan Hunter, A.M., Ph.D., Assistant in Histology and

Embryology.

MARGARET SHEA GILBERT, A.B., A.M., Assistant in Histology and

Embryology.

CLARENCE E. KLAPPER, A.B., A.M., Assistant in Histology and Embryology.

FRED J. ROEMER, A.B., Assistant in Anatomy. WAYNE RUNDLES, A.B., Assistant in Anatomy. Jack Hertzman, M.D., Assistant in Anatomy.

\*On leave, 1933-34.

## INSTRUCTION AT ITHACA

## During the First Year of the Course

## CALENDAR FOR ITHACA, 1933-34

#### FIRST TERM

Sept. 25, 26 Monday and Tuesday—Registration and assignment of new students.

Sept. 26, 27 Tuesday and Wednesday—Registration and assignment of old students.

Sept. 28 Thursday-Instruction begins.

Oct. 20 Friday-Last day for payment of tuition for first term.

Nov. 29 Wednesday-Instruction ends at 6 P. M.

Dec. 4 Monday—Instruction resumed at 8 A. M.

Dec. 23 Saturday—Instruction ends at 1 P. M. (Christmas recess).

Jan. 8 Monday—Instruction resumed at 8 A. M.

Jan. 11 Thursday-Founder's Day.

Jan. 29 Monday-Term examinations begin.

Feb. 7 Wednesday—Term examinations end; first term closes.

Feb. 8 Thursday-Holiday.

#### SECOND TERM

Feb. 9 Friday-Registration of all students for the second term.

Feb. 12 Monday—Instruction begins at 8 A.M.

Mar. 5 Monday—Last day for payment of tuition for second term.

Mar. 31 Saturday—Instruction ends at 1 p. m. (Spring recess.)

April 9 Monday-Instruction resumed at 8 A. M.

May 26 Saturday—(Holiday) Spring and Navy Day.

June 4 Monday-Final examinations begin.

June 12 Tuesday-Final examinations end.

June 18 Monday-Commencement.

#### GENERAL STATEMENT

From its foundation, Cornell University has offered special courses for students preparing for the study of medicine; first in the natural history course, and later also in a special two-year medical preparatory course. In 1898 the medical college was established in New York City with a four-year course. At the same time the work of the first two years was duplicated at the University in Ithaca, since many of the fundamental scientific subjects of which this part of the course mainly consists were already provided for in the long-established departments of botany, zoology, comparative anatomy, physics, chemistry, physiology, histology, embryology, and bacteriology. The courses in these departments were modified where necessary and additional courses were added so as to make the work at Ithaca equivalent to the first two years in New York City. In 1908, the work of the second year was discontinued at Ithaca.

OTHER COLLEGES OF THE UNIVERSITY. Among the facilities of the university of special value to the medical college may be mentioned the museums of vertebrate and invertebrate zoology (including entomology and comparative anatomy), of agriculture, of botany, of geology, and of veterinary medicine. The University Library with its 742,723 volumes and pamphlets, and over 2,000 current periodicals and transactions, is as freely open to medical students as to other university students.

STIMSON HALL. This is a modern and thoroughly equipped laboratory building erected for the medical college at Ithaca in 1902. It was made possible through the generosity of the late Dean Sage of Albany and named at his desire Stimson Hall in recognition of the services rendered by Dr. Lewis A. Stimson toward the establishment of the medical college. The building was especially designed for teaching and research in anatomy, histology, embryology, and physiology.

In the cellar are sound-proof conditioned reflex rooms, the cold-

storage, embalming, cremating rooms, and storerooms.

In the basement are the ventilating and cold-storage machinery, a large lecture room, research rooms, and an advanced laboratory for histology, besides the lower part of the large amphitheatre. Here also

is the operating room for physiology.

On the first floor are the coat rooms for men and women, college office, library, reading room, faculty room, histology and embryology research laboratory, general laboratory for experimental physiology, demonstration and metabolism room for physiology, and the upper

part of the large amphitheatre.

On the second floor is the Department of Histology and Embryology with a large general laboratory, research laboratory, preparation rooms, and private laboratories for the instructors. Upon this floor also is the Department of Physiology, with a large general laboratory for biochemistry, research laboratories for biochemistry, a research laboratory for experimental physiology, an incubator room, repair shop and private laboratories for the instructors.

The third floor consists of the general and special dissecting rooms for gross anatomy and neurology, study rooms, dark room, radiology

room and amphitheatre, besides rooms for the instructors.

The attic is utilized for photography, macerating skeletons, and for storage.

The air in the building is constantly changed by forced ventilation.

The lighting is especially good in all the rooms.

In the court behind the building is a house for alcohol and inflammables and provision for experimental animals, including a small animal house. Additional animal houses and experimental laboratories are situated at some distance from the medical building on the Physiology Field Station.

THE VANCLEEF MEMORIAL LIBRARY. This library, endowed by Mr. Mynderse VanCleef in honor of his brother, Dr. Charles VanCleef, is situated in Stimson Hall and supplements the extensive facilities of the

university library by a steadily growing collection of reference works and periodicals of importance for the work of instruction and research conducted in Stimson Hall. The library room is lighted by indirect overhead light, and the reading desks are provided with daylite lamp fixtures.

Experimental Field Station. An important adjunct to the Department of Physiology is an Experimental Field Station which consists of nine acres situated in the open country about two miles from the medical college. In this fenced field a barn for the accommodation of large animals such as sheep and goats, and proper houses with runs for small animals have been provided. In such a station animals under observation in feeding and nutrition experiments, for example, may be kept under ideal conditions for long periods of time. A laboratory equipped for the study of conditioned reflexes has been constructed in which it is possible, due to the quiet environment, to provide an experimental room practically sound proof. This is essential for success in the investigation of conditioned reflexes. Communication between the station and the laboratory is maintained by a motor truck belonging to the department.

The Sarah Manning Sage Research Fund. As a recognition of the importance of the research side of university work, and as a timely and generous gift, there came in 1916 a bequest of \$50,000 by the will of Sarah Manning Sage, widow of Dean Sage, the donor of Stimson Hall. The income of this sum, or in the discretion of the university the principal also, shall be used to promote the advancement of medical science by the prosecution of research in the Cornell University Medical College at Ithaca, in connection with any and all subjects at any time embraced in the curriculum.

#### PLAN OF INSTRUCTION

#### ANATOMY

ABRAM T. KERR, B.S., M.D., Professor of Anatomy.

James W. Papez, A.B., M.D., Assistant Professor of Anatomy and Neurology.

JACK HERTZMAN, M.D., Assistant. Fred J. Roemer, A.B., Assistant. Wayne Rundles, A.B., Assistant.

The courses in anatomy are designed to provide a comprehensive

and detailed study of the structure of the human body.

The work in gross anatomy is mostly concentrated in the first term of the first year. The laboratory is open from eight to five on week days, except Saturday. Twenty-five hours a week are allowed for the required work in the first term and four hours a week in the second term. Students who have additional hours free may devote more time to the subject.

The work consists mainly of dissection followed by recitation on the part dissected. For this work there is an ample supply of dissecting material well embalmed and kept in cold storage ready for use. Each student is required to do a clean and careful dissection of a lateral half of the body. The regional method of dissection is followed. The student is furnished a systematic laboratory outline so arranged where possible that the structures in each region can be studied together as a topographic, functional, or surgical area. It is realized that no one method or point of view is sufficient or applicable to every region. The purpose throughout is to make the student find and identify every structure, to appreciate its functional significance, its relations and its peculiar characteristics, to assemble details into general concepts, to visualize and interpret every region and organ. The aim is to direct the student to work methodically, to observe carefully and to think clearly and independently. He is encouraged to make careful notes and as many drawings as time permits. Where feasible, he is taught to compare his findings on the cadaver with conditions in the living bodv.

An x-ray outfit and fluoroscope in the department makes it possible in many regions to compare the x-ray picture from the cadaver with the findings in the dissection. A complete disarticulated skeleton is loaned to each student so that the bones may be available for study when encountered in course of dissection. In addition the department is well equipped with models, cross sections, and special dissections for study and demonstration. For study of the finer structure of the organs hand lenses and several binocular dissecting microscopes are provided in the laboratory. A student library containing atlases and some of the more important anatomical monographs is in connection with the laboratory. Besides the usual regional recitation on the dissected part, demonstration conferences are held about three times a week with the class as a whole or with smaller groups. Occasional lectures are given on matters that cannot be made clear by dissection and demonstrations.

The work in the anatomy of the nervous system and sense organs is given during the second term. It consists mainly of laboratory work with frequent conferences and recitations. A topographic study and dissection of the organ or part precedes or accompanies its microscopic study. Special attention is given to the sense organs, nerves, nuclei, reflex connections, conduction tracts and cortical areas that enter into the formation of the more important functional systems. In connection with each organ or part, its development and comparative morphology is considered. For this work an ample supply of human brains, brains of lower mammals, Weigert sections, and other preparations is available.

The department is well equipped to provide facilities for those properly qualified to undertake advanced and research work. Students with special ability or training are permitted to do more than the required work. Where time permits they are encouraged to do advanced or research work.

## 1. Anatomy of the Head and Neck.

First term. Credit, 4 hours, 24 actual hours a week for 6 or more weeks. Professors Kerr and Papez, instructors and assistants. Laboratory work, dissection, and conferences.

## 2. Anatomy of the Thoracic Walls and Viscera.

First term. Credit, 1 hour, 24 actual hours a week for 2 or more weeks. Professors Kerr and Papez, instructors and assistants. Laboratory work, dissection, and conferences.

### 3. Anatomy of the Abdominal and Pelvic Walls and Viscera.

First term. Credit, 4 hours, 24 actual hours a week for 6 or more weeks. Professors Kerr and Papez, instructors and assistants. Laboratory work, dissection, and conferences.

## 5. The Nervous System. Anatomy, Histology, and Systematization.

Second term. Credit, 3 hours. Assistant Professor Papez and instructors. Eight hours a week laboratory with laboratory demonstrations, conferences and recitations. Dissection of the spinal cord and brain. Microscopic structure and development of the nervous system.

### 6. Anatomy of the Living Body.

First term. Credit, 2 hours, 3 actual hours a week. Professor Kerr. Interpretation of dissecting room material by means of the living body, frozen sections, and special preparations. A review of the work of Courses 1, 2, and 3.

## 7. Anatomy of the Upper Extremity.

First term. Credit, 2 hours, 24 hours a week for 2 or more weeks. Professors Kerr and Papez, instructors and assistants. Laboratory work, dissection, and conferences.

## 8. Anatomy of the Lower Extremity.

Second term. Credit, 2 hours, 4 hours a week for 16 weeks. Professors Kerr and Papez, instructors and assistants. Laboratory work, dissection, and conferences.

#### 9. Topographical Anatomy.

First and second terms. Credit, 2 to 5 hours. Elective. Prerequisite, anatomy courses 1, 2, 3, 7, or 8. The detailed dissection and study of any region. Professors Kerr and Papez.

## 250. Research in Anatomy and Neurology.

First and second terms. Professors Kerr and Papez. Advanced and research work in the laboratories. Open only to those who have taken the necessary preliminary courses, and are properly qualified.

### HISTOLOGY AND EMBRYOLOGY

BENJAMIN F. KINGSBURY, Ph.D., M.D., Professor.

HOWARD B. ADELMANN, A.M., Ph.D., Assistant Professor.

THEODORE SNOOK, B.S., Ph.D., Instructor.

ANDREW J. RAMSAY, A.B., Instructor.

RUTH McMILLAN HUNTER, A.M., Ph.D., Assistant.

MARGARET SHEA GILBERT, A.B., A.M., Assistant. CLARENCE E. KLAPPER, A.B., A.M., Assistant.

As indicated by the following courses, this department offers elementary and advanced instruction in the theory and use of the microscope and its accessories in histology and embryology and, also, op-

portunities for research in all of these subjects.

The material equipment consists of a good supply of modern micro-Camera-lucidas, polariscopes, micro-spectroscopes, photomicrographic cameras, microtomes and other special apparatus such as dark-field illuminators are available in sufficient numbers to give each student opportunity for personally learning to use and apply them to any special study in which they may be needed. Two projection microscopes are available for class demonstrations and for making the drawings used in reconstruction.

The rooms for the use of the department are on the second floor of Stimson Hall. They are well lighted. They consist of a large general laboratory, an advanced laboratory, a preparation room, department office and five private laboratories for the instructing staff, where special demonstrations of difficult subjects are given to small groups of

students.

The collection of material and microscopic series of human embryology, contributed mainly by graduates of the college, is steadily growing. Every encouragement is given for the fullest utilization of

the opportunities afforded by the department.

The work of the department consists of practical laboratory work, supplemented by lectures, conferences, and demonstrations. The work required of students of medicine is given in Course 10. For those who have already had elsewhere satisfactory work in histology, elective work may be taken in Courses 107 and 108. Courses open to students in the College of Arts and Sciences and Veterinary Medicine are described in the announcements of these colleges.

### COURSES REQUIRED OF STUDENTS OF MEDICINE

10. Histology.

First term. Credit, 8 hours. Professor Kingsbury and assistants. Required of first-year students of medicine. Four laboratory periods and four lectures each week. The work includes (a) The fundamentals of human development; (b) The histology of the tissues and organs (except the nervous system); (c) The main facts of histogenesis and the development of the organs (except the nervous system). It is highly advantageous that the course be preceded by a course in embryology (see Courses of Instruction of the College of Arts and Sciences, Course 104).

### ADVANCED AND ELECTIVE COURSES

107. Advanced Work in Histolog y and Embryolog y.

First and second terms. Professor Kingsbury and Assistant Professor Adelmann. Laboratory work, eight or more actual hours a week, with Seminary (Course 108).

This course is designed for those preparing theses for baccalaureate or advanced degrees, and for those wishing to undertake special investigations in histology and embryology.

Course 107 is open to those who have had Course 10, or its equivalent. A good reading knowledge of French and German is indispensable for the most successful work in this course. It is suggested that those who intend to take this course confer with the head of the department as early as possible, so that the work may be planned to the best advantage.

108. Seminary.

First and second terms. One hour each week at an hour to be arranged. For the discussion of current literature and the presentation of original work by the members of the department staff and those doing advanced work in the department. It may be taken in connection with Course 107.

# PHYSIOLOGY AND BIOCHEMISTRY

James B. Sumner, A.M., Ph.D., Professor of Biochemistry. Howard S. Liddell, A.M., Ph.D., Professor of Physiology. Joseph A. Dye, A.B., Ph.D., Assistant Professor of Physiology. George H. Maughan, A.M., Ph.D., Instructor in Physiology. David B. Hand, A.B., Ph.D., Instructor in Biochemistry. Stacey F. Howell, A.B., M.S., Instructor in Biochemistry.

### PHYSIOLOGY

This subject is taught in the second term of the first year of the medical curriculum. It is the aim of the department to give the students a thorough training in the fundamentals of the science of physiology and an effort is made to strike the proper balance between the study of theoretical principles in the lecture room and the practical application of these in the laboratory.

Nine hours a week are devoted to practical exercises, special attention being given to experimental methods which are likely to be of

importance in the study of clinical medicine.

In the laboratory, from year to year, less and less time is taken up with frog physiology and more and more time devoted to a practical study of mammalian functions. This is made possible by the fact that the department now possesses six large Brodie type kymographs of recent pattern for the exclusive use of medical students.

The following courses are offered:

- 31. Physiology of Muscle and Nerve; Central and Automatic Nervous Systems; Special Senses.

  Second term. Credit, 4 hours. Professor Liddell and assistants. Four lectures or recitations and three laboratory periods weekly for eight weeks.
- 34. Physiology of Digestion and Secretion; Absorption; Excretion; Heat Production and Its Regulation; and Functions of the Endocrine Glands.

Second term. Credit, 4 hours. Assistant Professor Dye, Instructor Maughan, and assistant. Four lectures or recitations and three laboratory periods weekly for eight weeks, supplemented by demonstrations, conferences and written reviews. In the Laboratory, the students will gain practical experience by making animal preparations, demonstrating and studying the physiological mechanisms of the mammalian body.

308. Advanced Work and Research in Physiolog y.

First and second terms. Credit, 2 or more hours. Assistant Professor Dyc. Prerequisite or parallel, courses 31 and 34 or their equivalents. This course is designed for undergraduate students who are especially interested in physiological problems and wish to undertake special investigations in this field in preparation for further work toward advanced degrees.

310. Seminary in Physiology.

Second term. Credit, 1 hour. For graduate students and others properly qualified. Hour to be arranged. Members of the staff. Reports on recent advances in physiology.

### BIOCHEMISTRY

In this section the student is taught the chemistry of the tissues, fluids, secretions, and excretions of the human body; the composition of food-stuffs, and the phenomena of their digestion, absorption, and assimilation; the rôle of enzymes in the animal economy; the principles of nutrition; and the leading facts of general and special metabolism. Groups of organic compounds of special biological importance will be discussed emphasizing particularly the carbohydrates, purins, amino acids, and fats. The fundamental properties of electrolytes and colloids and the phenomena of osmosis and dialysis will be considered in lecture room and laboratory. Instruction is given in the use of analytical methods for the examination of biological products, both normal and pathological. Those methods are principally considered which have found an application in scientific medicine, and special attention is devoted to the quantitative analysis of the gastric contents, blood, and urine. Each student completes the course by performing a metabolism experiment upon himself.

The bulk of the instruction is given in the laboratory. As occasion arises, the student's individual work there is supplemented by experimental demonstrations; while by means of lectures and recitations it is sought to co-ordinate the whole, and to expound the theoretical

aspects of the subject.

The following courses are offered:

15. General Biochemistry.

Second term. Credit, 9 hours. Five lectures or recitations and four three-hour laboratory periods weekly; supplemented by demonstrations, conferences and written reviews. Professor Sumner, Instructors Hand and Howell. Required of first-year students of medicine.

17. Special Chapters in Biochemistry.

First term. Credit, I hour. Professor Sumner. One lecture weekly on some selected province of biological chemistry. Hour to be arranged. This is an elective course for advanced students or graduates.

320. Advanced and Research Work in Biochemistry.

First and second terms. Professor Sumner. The laboratory is open daily to all qualified persons for advanced instruction or the prosecution of research. Courses are arranged to suit the training and requirements of the individual student.

### SUMMARIZED STATEMENT

In this schedule the counts or university hours are given on the following basis: One recitation or lecture weekly for one term or half year gives a credit of one; for laboratory work it requires two and one-half to three actual hours weekly for a term or half year to secure a credit of one.

# REQUIRED COURSES FIRST TERM

1. Anatomy of the Head and Neck.

Credit, 4 hours, 24 actual hours a week for 6 weeks. Professors Kerr and Papez, instructors and assistants. Laboratory work, dissection, and conferences.

2. Anatomy of the Thoracic Walls and Viscera.

Credit, 1 hour, 24 actual hours a week for two weeks. Professors Kerr and Papez, instructors and assistants. Laboratory work, dissection, and conferences.

3. Anatomy of the Abdominal and Pelvic Walls and Viscera.

Credit, 4 hours, 24 actual hours a week for 6 weeks. Professors Kerr and Papez, instructors and assistants. Laboratory work, dissection, and conferences.

6. Anatomy of the Living Body.

Credit, 2 hours, 3 actual hours a week. Professor Kerr.

7. Anatomy of the Upper Extremity.

Credit, 2 hours, 24 actual hours a week for 2 or more weeks. Professors Kerr and Papez, and assistants.

10. Histology.

Credit, 8 hours. Professors Kingsbury, Adelmann, instructors and assistant. Four laboratory periods and four lectures each week.

#### SECOND TERM

31. Physiology of Muscle and Nerve; Central and Automatic Nervous Systems; Special Senses.

Second term. Credit, 4 hours. Professor Liddell and assistants. Four lectures or recitations and three laboratory periods, weekly for eight weeks.

34. Physiology of Digestion and Secretion; Absorption; Excretion; Heat Production and Its Regulation; Functions of the Endocrine Glands.

Second term. Credit, 4 hours. Four lectures or recitations and three laboratory periods weekly for eight weeks, supplemented by demonstrations, conferences and written reviews. In the laboratory, the students will gain practical experience by making animal preparations, demonstrating and studying the physiological mechanisms of the mammalian body. Assistant Professor Dye, Instructor Maughan, and assistants.

15. General Biochemistry.

Credit, 9 hours. Five lectures or recitations and four three-hour laboratory periods weekly, supplemented by demonstrations, conferences, and written reviews. Professor Sumner and instructors.

5. The Nervous System. Anatomy, Histology, and Development.

Credit, 3 hours. Assistant Professor Papez and instructors. Eight actual hours a week. Dissection of the spinal cord and brain. Microscopic structure of the nervous system and organs of special sense.

8. Anatomy of the Lower Extremity.

Credit, 2 hours, 4 actual hours a week. Professors Kerr and Papez and assistants.

# FIRST TERM

	No. of Course	University Hours	Actual Hours Weekly
Anatomy	1,2,3,7	11	24
Anatomy	6	2	3
Histology	10	8	16
		21	43

Second Term			
Anatomy Physiology Physiology	8 31	2 4 }	4 13
Physiology Nervous System	34 5	3	8
Biochemistry	15	9	17 —
		22	42

# GENERAL INFORMATION

# Requirements for Admission

The requirements for admission are identical with those of the Medical College at New York City (see page 50).

## RESIDENCE AND REGISTRATION

The college year is nine months long, extending from the last of September till about the middle of June, and is divided into two nearly equal terms. (For exact dates, see calendar on page 96).

No credit is given for work done in absentia. For leave of absence

during the session, application should be made to the Secretary.

At the beginning of the term students must register with the University Registrar, in Morrill Hall. After registration with the University Registrar, they must register with the Secretary of the Medical College, in Stimson Hall.

# Examinations and Advancement

Students are advanced in course from one year to the next on passing examinations on the work of that year. The work of each year is considered final of itself. There is no unnecessary repetition of subjects taught from year to year. According to the usage of the other colleges, the university student found to be markedly deficient will be dropped from the college at the end of the term. In the case of a student so dropped, an application for re-admission will not be considered until

after the expiration of one term.

Upon the completion of the year in Ithaca, a transcript of the record of each student, together with a statement that such student is recommended for admission to the second-year class, is transmitted by the faculty at Ithaca to the faculty of the medical college in New York City. As a student is not advanced from one year to another in the New York division until all the work of the year is completed, a student from Ithaca cannot enter the second-year class in New York until the entire schedule of the first year has been successfully completed. For removing any conditions, examinations are held at the beginning of the fall term, both in Ithaca and in New York City. The student is at liberty to take these examinations in Ithaca or in New York City. The examination on a subject in either place is final for that year. That is, the student will not be permitted to try an examina-

tion on a subject in Ithaca, and take advantage of the later date for the examination in New York to have a second examination on the same subject in the same autumn.

# CHARGES FOR INSTRUCTION

#### FIRST YEAR

Tuition.	•	•	•		•	•	•	•	•	500
										\$510

Willard Straight Hall and Infirmary fees are paid by medical students as well as by all other students.

All tuition and other fees may be changed or increased by the Trustees to take effect at any time without previous notice.

Applications for registration in the Medical College should be made by

January 1, and a deposit of \$100 is required if accepted.

An application received after January 1 may be accepted if, in the judgment of the Faculty, there is adequate provision for the student's instruction.

The advance of \$100 on account of tuition which is required of each applicant on acceptance for admission is payable normally within two weeks of notification, and is not returnable.

# RESIDENTIAL HALLS

The University has eight residential halls for men students situated on the campus and furnishing accommodations for about 600 students. For particulars address The Manager of Residential Halls, Morrill Hall, Ithaca, N. Y. There are, also, many private boarding and rooming houses near the campus. In these the cost of board and furnished room, with heat and light, varies from \$10 to \$15 a week. By the formation of clubs, students are sometimes able to reduce their expenses for room and board. Cafeterias are maintained by the university in Willard Straight Hall and in the Home Economics Building, where meals can be obtained at reasonable prices.

Before engaging rooms, students should carefully examine sanitary conditions and should particularly insist on satisfactory and sufficient The university publishes and distributes a list of approved rooming houses. This list is ready for distribution August 15. New students are advised to come to Ithaca a few days in advance of the beginning of the university duties in order that they may have ample time to secure room and board before the opening of the academic year. The Freshman Advisory Committee offers its assistance to new

students in the selection of rooming and boarding houses.

The residential halls for women students are Sage College, Prudence Risley Hall, and Balch Halls. In these buildings, which are exclusively for women students, the total cost of board, laundry, and rent of furnished rooms, with heat and light is \$515 a year. The halls are heated by steam, and lighted by electricity. The Dean of Women has jurisdiction over all women students in the university, and women students are not permitted to board and lodge outside of the halls for women except in houses approved by her and subject to her direction. Prospective women students should write to the Dean of Women for information concerning any matters in which they may need assistance. Dormitory facilities for women are inadequate, and prospective students desiring such accommodations are urged to make early application. Inquiries in regard to board and rooms in the women's halls should be addressed to The Manager of Residential Halls, Morrill Hall, Ithaca, N. Y.

# CORNELL UNIVERSITY MEDICAL COLLEGE

ITHACA, N. Y.

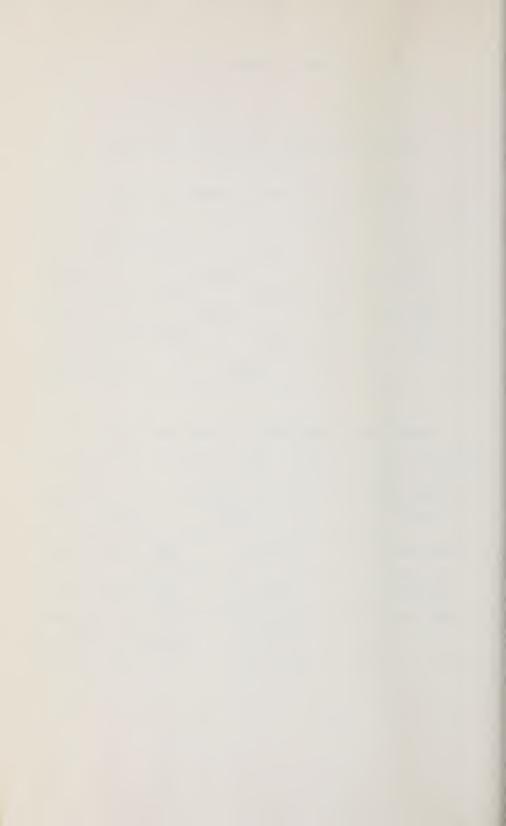
# FIRST YEAR—Session of 1933-1934—FIRST TERM

	8	9	10	11	11:30	I	2	3				
Monday	Anatomy L.	Histology L.		Histology		Anatomy						
Tuesday			Anatomy			Anatomy						
Wednes- day	Anatomy L.	Histology L.		Histology	,	Anatomy						
Thursday			Anatomy	Anatomy								
Friday	Anatomy L.	Histology L.		Histology		Anatomy						
Saturday	Histology L.		Hist	ology								

# First Year—Session of 1933–1934—Second Term

	8	9	10	11	11:30	ī	2	3			
Monday		A	Neuro-Anatomy								
Tuesday	Biochem- istry L.		Physi	iology	Physiology						
Wednes- day	Physiology L.	Biochem- istry L.		Biochemistr	у	Neuro-Anatomy					
Thursday	Physiology L.	Biochem- istry L.		Physiology		Biochemistry					
Friday	Physiology L.	Biochem- istry L.		Biochemistr	у	Neuro-Anatomy					
Saturday	Physiology L.	Biochem- istry L.		Biochemistr	у						





## GRADUATE WORK AT ITHACA

### ADMISSION

The Graduate School has exclusive control of all graduate work carried on in the university. Graduates of the following colleges of Cornell University, namely, the College of Arts and Sciences, the College of Architecture, the College of Engineering, the Medical College, the New York State College of Agriculture, the New York State College of Home Economics, the Law School and the New York State Veterinary College, and also graduates of other institutions in which the requirements for the first degree are substantially equivalent, are eligible for admission to the Graduate School. In other cases studies pursued after graduation, and experience gained by professional work or otherwise, are taken into consideration in deciding whether the candidate's preparation as a whole is such as to justify his admission to the Graduate School. Graduates of colleges other than those of Cornell University may be admitted to the Graduate School, but not to candidacy for an advanced degree, if their training is regarded as less than one year short of that required for the first degree at Cornell University.

In order to be admitted to the Graduate School, a student must furnish evidence that he has already received a first degree, by presenting either a diploma or a statement from some official source. The simplest procedure will ordinarily be to submit an official statement from the registrar or dean that the degree has been conferred. In the case of graduates of Cornell University this is not necessary, since the

records are conveniently accessible.

To avoid delays at the beginning of the academic year, those who desire to enter the Graduate School are advised to make application for admission, either in person or by letter, in the preceding spring or summer. Correspondence should be addressed to the Dean of the

Graduate School, Cornell University, Ithaca, New York.

For details in regard to the selection of major and minor subjects, special committees in charge of the work of each candidate for an advanced degree, fees, time required, thesis, and special conditions to be fulfilled by each candidate for an advanced degree, reference should be made to the Announcement of the Graduate School.

### FACILITIES

The facilities of the departments of anatomy, histology and embryology, physiology and biochemistry, have been outlined under the description of each department. These are equally available for the use of the graduate students and for medical students.

# FELLOWSHIPS AND GRADUATE SCHOLARSHIPS

Among the twenty-four fellowships and eighteen scholarships offered annually to students in the Graduate School, the following are of particular interest to students continuing work in biological sciences:

THE SCHUYLER FELLOWSHIP IN ANIMAL BIOLOGY (annual value of \$400 and free tuition in the Graduate School).

THE GRADUATE SCHOLARSHIP IN ANIMAL BIOLOGY (annual value of \$200 and free tuition in the Graduate School).

# THE COMBINED A.B. AND M.D. DEGREES

The medical college advises students to complete, whenever feasible, the full four-year A.B. course before applying for admission to this college. It is possible, however, to be admitted to the medical college under Section II of the entrance requirements. This is to provide for those students who, by specially directed or especially proficient work, accomplish the essential requirements for the Arts degree during three years of college residence. No students are admitted under this classification unless their college faculty will permit them to substitute the first year in the Cornell University Medical College for the fourth year of their college course, and no student is admitted to the second year in the Medical College without the bachelor's degree obtained after at least three years of undergraduate college work.

The first year in the medical course, which may be taken in place of the fourth year of the arts work, may be pursued either in Ithaca or in New York City. If all the work of this year is completed satisfactorily the student receives the degree of A.B. or its equivalent, and is permitted to take the last three years of the medical work. These are taken entirely in the Cornell University Medical College in New York

City.

For the convenience of college students preparing for medicine, a schedule of the courses in the College of Arts and Sciences of Cornell University, in physics, chemistry, and biology, which will satisfy the requirements for admission to the medical college, is given below. If a student is taking four years in a liberal arts college, these courses may be taken later in the course than indicated. It is important that the order given in the outline should be followed, as certain of these courses are prerequisite for other prescribed courses. In addition to the courses required for admission to the medical college, the student will take all courses in English, foreign language, philosophy and psychology, history, mathematics, economics and government which are prescribed by the College of Arts and Sciences. It is advised that all these underclass requirements be completed before the beginning of the junior year.

The courses which the medical college requires of its applicants for admission, and planned for the student who expects to finish his arts

courses in three years are thus outlined:

### FIRST YEAR IN ARTS

	Course No.	1st Term Hours Credit	
Animal Biology (Introductory Zoology). Chemistry (Introductory Inorganic). Chemistry (Introductory Inorganic).	1 101 105	3	3 3 3
Second Year in Arts			
Animal Biology (Comparative Anatomy and morphology of vertebrates).  Chemistry (Introductory Qualitative Analysis).  Chemistry (Introductory Quantitative Analysis).  Physics (Introductory Experimental).	11 210 225 3 & 4	3 3	3 3 3
THIRD YEAR IN ARTS			
Chemistry (Elementary Organic). Animal Biology (Histology and Histogenesis of the tissues). Animal Biology (Vertebrate Embryology). Physics (Introductory Physical Experiments).	375 101 104 55	6 4 3	5

It is desirable that included in, or in addition to the modern foreign language required for admission to the Medical College, students should obtain a reading knowledge of French and German.

Some of the additional courses suggested for election according to

the needs or desires of each individual student are:

In the group of Animal Biology, courses: 10—Cytology; 14—Genetics; 102—Histology and development of the organs; 221—Structure of the human body; 222—Anatomical methods; 1-2—Economics and 54—Introduction to Social Science. Also courses in Psychology and additional courses in English and Public Speaking where these latter are needed.

# STUDENTS, 1933-34

# CANDIDATES FOR THE DEGREE OF DOCTOR OF MEDICINE

### FOURTH YEAR

Elizabeth Clarice Adams, A.B., 1926, Wellesley College, M.S., 1930, New York University Willsboro, N. Y. Frank Marvin Adams, B.S., 1932, University of North Carolina Dillon, S. C. George Newton Ballentine, B.S., 1930, Bucknell University Lewisburg, Pa. Buffalo, N. Y. Virginia Barrett, A.B., 1931, Cornell University Theodore Charles Bauerlein, A.B., 1931, Cornell University
Theodore Charles Bauerlein, A.B., 1928, St. Mary's College
Michael Steven Brody, B.S., 1928, New York University
Frederick Robert Brown, A.B., 1931, Cornell University
Veronica Cecelia Brown, A.B., 1925, Cornell University
Peter Louis Carnesale, A.B., 1930, Cornell University
Robert LaTourette Cavenaugh, A.B., 1930, Cornell University
Walter Irving Chapman, A.B., 1930, Johns Hopkins University
Charles Gardner Child, 3rd, A.B., 1930, Yale University
Nathaniel Cooper, B.S., 1939, College of the City of New York Topeka, Kans. New Brunswick, N. J.
Floral Park, N. Y.
New York, N. Y.
New York, N. Y. Berkeley, Calif. Westwood, N. J. New York, N. Y. New York, N. Y. Nathaniel Cooper, B.S., 1929, College of the City of New York William Thomas Doran, Jr., A.B., 1930, Dartmouth College New York, N. Y. -William Harrison Eberle, A.B., 1931, Cornell University Ashtabula, Ohio New York, N. Y. William Epstein, B.S., 1930, College of the City of New York Geneva, N. Y. Kenneth Tyne Fairfax, A.B., 1931, Cornell University Gladys Jeannette Fashena, A.B., 1929, Hunter College, A.M., 1930, Columbia University New York, N. Y. Dorothy Loomis Frame, A.B., 1930, Vassar College New York, N. Y. Nathan Baruch Friedman, A.B., 1930, Harvard University New York, N. Y. Otto S. Hensle, B.S., 1930, Washington and Jefferson College Rutherford, N. J. John Winslow Hirshfeld, A.B., 1930, Cornell University Detroit, Mich. Marion Hotopp, A.B., 1921, Mount Holyoke College Heloise Beekman Hough, A.B., 1929, Barnard College New York, N. Y. New York, N. Y. Joseph John Kanich, A.B., 1931, Cornell University Coaldale, Pa. Irving Ludwig Kohn, A.B., 1929, Cornell University
Earl Parsons Lasher, A.B., 1931, Cornell University
Leon Samuel Loizeaux, Jr., 1931, Cornell University New Rochelle, N. Y. Yonkers, N. Y. New York, N. Y. Hanna William Randolph Lovelace, A. B., 1930, Washington University Albuquerque, N. M. Donald Cameron Malcolm, B.S., 1930, Washington and Jefferson College Thomas Poultney Ellicott Mathews, A.B., 1930, Columbia University Indiana, Pa. Yonkers, N. Y. Helen Maria McKee, B.S., 1927, Connecticut College Emory Allan McLean, A.B., 1931, Dartmouth College W. Roxbury, Mass. West Somerville, Mass. John Milton McLean, M.E., 1930, Stevens Institute of Technology New York, N. Y. Adolph Meltzer, B.S., 1930, College of the City of New York New York, N. Y. James Alexander Moore, A.B., 1930, Cornell University Robert Emmet Mountain, A.B., 1931, Cornell University Albany, N. Y. Olean, N. Y. Harry Maurice Murphy, A.B., 1931, Cornell University Buffalo, N. Y. Roger Burdette Nelson, A.B., 1930, Cornell University Jamestown, N. Y. Frederick Walter Rea, A.B., 1931, Cornell University New Philadelphia, Ohio Barre, Vt. Fond du Lac, Wis. Ernest Venner Reynolds, A.B., 1930, Williams College Edward Pier Roemer, A.B., 1930, University of Wisconsin Augustine Thornton Scott, A.B., 1930, Princeton University Lexington, Ky. Blakely, Ga. New York, N. Y. New York, N. Y. New York, N. Y. Henry Thomas Sherman, B.S., 1930, Emory University Wincent Joseph Simmon, A.B., 1929, Amherst College Wilson Fitch Smith, Jr., Ph.B., 1930, Yale University
Harry Strongin, A.B., 1931, Cornell University
Howard Taylor Stuch, A.B., 1929, University of Michigan
William Albert Thornhill, A.B., 1930, West Virginia University Allegan, Mich. Charleston, W. Va. Henry Bernard Tillman, Ph.B., 1930, Brown University Springfield, Mass.

Harry Goodwin Tounge, Jr., B.S., 1930, University of New Hampshire Malden, Mass.

Karl Lane Van Horn, A.B., 1927, West Virginia University
William Rankin Ward, Jr., A.B., 1930, Colgate University
William Patrick Whalen, A.B., 1931, Cornell University
William Patrick Whalen, A.B., 1930, Fordham University
Edward Thomas Yorke, B.S., 1930, University of Notre Dame

Malden, Mass.

Morgantown, W. Va.

Newark, N. J.

Saranac Lake, N. Y.

New York, N. Y.

Carteret, N. J.

### THIRD YEAR

Maxwell Rufus Berry, Jr., A.B., 1931, Cornell University
Perry Sanborn Boynton, Jr., A.B., 1931, Dartmouth College
Cornelius Persen Brink, B.S., 1931, Middlebury College
Walter Fuchsius Bugden, B.S., 1931, Tufts College
John Heckman Burke, Jr., A.B., 1932, Cornell University
Katherine Butler, A.B., 1920, Mt. Holyoke College, A.M., 1926, Cleveland, Ohio New York, N. Y. Elizabeth, N. J. New Rochelle, N. Y. Elmira, N. Y. Columbia University Providence, R. I. New York, N. Y. John Cannon, A.B., 1931, Williams College Jack Howard Carlquist, A.B., 1931, University of Utah Salt Lake City, Utah Henry Ashley Carr, A.B., 1931, Princeton University Philadelphia, Pa. Elizabeth Panet Chittenden, A.B., 1931, Vassar College Greenwich, Conn. Orrin Fluhr Crankshaw, A.B., 1932, Dartmouth College Lyndhurst, N. J. Daniel Innes Dann, B.S., 1931, Bucknell University Canton, Pa. Arthur Gerard DeVoe, A.B., 1931, Yale University New York, N. Y. Summit, N. J. Phyllis Amanda Dooley, A.B., 1932, Cornell University New York, N. Y. Marshall Fletcher Driggs, Ph.B., 1931, Yale University Ralph Howard Edson, B.S., 1931, Princeton University Washington, D. C. John Arthur Evans, B.S., 1931, New York University New York, N. Y. Herbert Calvin Fisher, A.B., 1932, Dartmouth College Denver, Colo. George Granville Flenner, A.B., 1932, Cornell University Hamilton, Ohio Paterson, N. J. Baldwin, N. Y. Schenectady, N. Y. New York, N. Y. Floyd Fortuin, A.B., 1932, Columbia University Carl Frederick Freese, B.S., 1929, Union College David Gold, A.B., 1931, Union College William Henry Hanna, Jr., A.B., 1930, Princeton University

Stephen Howat Harris, Ph.B., 1930, Brown University

Robert Williams Hedges, B.S., 1931, Princeton University

Harry Heim Henderson, B.S., 1931, Washington and Jefferson College

Henry Miles Imboden, B.S., 1931, Franklin and Marshall College

Charles Edward Jacobson, B.S., 1931, Trinity College

Padward Francis Keefe, Jr., B.S., 1931, College of the City of New York

Saul Rosenthal Kelson, A.B., 1930, A.M., 1931, Cornell University Valley Falls, R. I. Plainfield, N. J. Wheeling, W. Va. Mt. Vernon, N. Y. Perth Amboy, N. J. New York, N. Y. Saul Rosenthal Kelson, A.B., 1930, A.M., 1931, Cornell University Julius August Klosterman, Ph.D., 1932, New York University Syracuse, N. Y. Bogota, N. J. Englewood, N. J. Alexander Duncan Langmuir, A.B., 1931, Harvard University Palo Alto, Calif. Edwin Vance Lawry, A.B., 1931, Stanford University John Goeller Leuthner, A.B., 1931, Dartmouth College New York, N. Y. Atlantic City, N. J. Minneapolis, Minn. Edward Augustus Loeb, B.S., 1931, Rutgers University Thomas Lowry, A.B., 1931, Princeton University

William Dennis McCarthy, Ph.B., 1931, Brown University

William Theophil Medl, A.B., 1932, Cornell University

Robert Edward Merritt, B.S., 1931, University of Nevada

Mary Compton Moss, A.B., 1929, Barnard College

Frederick Scoville Nicoll, B.S., 1931, Washington & Jefferson College

Hailes LaGue Palmer, Ph.B., 1931, Brown University Lonsdale, R. I. New York, N. Y. San Francisco, Cal. Babylon, N. Y. Brooklyn, N. Y. Hailes LaGue Palmer, Ph.B., 1931, Brown University
Edgar Cooper Person, A.B., 1931, University of North Carolina
Boris Petroff, A.B., 1931, Cornell University
Albert Carroll Redmond, B.S., 1931, Hamilton College
Richard Reeser, Jr., A.B., 1931, Cornell University
Lucien Griggs Rice, Jr., A.B., 1931, University of New Mexico
William Raymond Richards, Jr., A.B., 1931, Cornell University
Herbert Joseph Riekert, A.B., 1932, Cornell University
Samuel Henry Roberts, B.S., 1931, College of the City of New York Providence, R. I. Pikeville, N. C. Upper Montclair, N. J. New York, N. Y. Columbia, Pa. Albuquerque, N. M. Medford, Mass. New York, N. Y. New York, N. Y.

Chauncey Lake Royster, A.B., 1931, University of North Carolina Chapel Hill, N. C. George Goble Sale, B.S., 1931, Bucknell University Lewisburg, Pa. George Benton Sanders, A.B., 1932, Cornell University Louisville, Ky. Fishkill, N. Y. Grant Sanger, B.S., 1931, Princeton University Alfred Albert Scharbius, Jr., B.S., 1932, University of Vermont Brooklyn, N. Y. Eleanor Scott, A.B., 1933, University of Wisconsin Philadelphia, Pa. William Albert Sibrans, B.S., 1931, Fordham University New York, N. Y. Edward Fuller Stanton, B.S., 1926, University of Maine Hartford, Conn. Charles Greaves Stetson, A.B., 1931, Cornell University Milford, Conn. James William S. Stewart, B.S., 1931, College of the City of New York New York, N. Y. Joseph Raymond Strauss, B.S., 1933, University of North Carolina New York, N. Y. Everett Dornbush Sugarbaker, B.S., 1931, Wheaton College Hawthorne, N. J. Clarence Benjamin Taft, A.B., 1928, Harvard University James Frederick Thackston, B.S., 1924, University of Tennessee, New York, N. Y. A.M., 1930, New York University New York, N. Y. John Howard Thomas, A.B., 1931, Cornell University Howard Townsend, Jr., A.B., 1922, Harvard University Jefferson Weed, A.B., 1929, Union College Youngstown, Ohio New York, N. Y. Garden City, N. Y. Charles Hathorn Wheeler, Jr., B.S., 1931, Princeton University Heins Wichman, B.S., 1931, New York University Upper Montclair, N. J. Floral Park, N. Y. Albany, N. Y. Albert Mansfield Yunich, A.B., 1931, Cornell University

### SECOND YEAR

Stanley Sisco Atkins, A.B., 1932, Oberlin College Trenton, N. J. Henry Jennings Babers, Jr., B.S., 1932, University of Florida Donald Nelson Ball, B.S., 1928, Pennsylvania State College, M.S., 1930, Gainesville, Fla. Cornell University, M.A., 1932, Harvard University John Nickolas Barbey, B.S., 1932, New York University Sunbury, Pa. Yonkers, N. Y. Brooklyn, N. Y. Henry Kohlman Beling, A.B., 1932, Columbia University Edwin Tremain Bradley, A.B., 1932, Princeton University Nyack, N. Y. New York, N. Y. William Putnam Colvin, A.B., 1933, Columbia University Crispin Cooke, A.B., 1932, Harvard University Buffalo, N. Y. Robert Allison Cosgrove, A.B., 1933, Cornell University Jersey City, N. J. East Orange, N. J. Ralph Stanton Emerson, A.B., 1933, Cornell University Swan Lake, N. Y. Hyman Engelberg, A.B., 1933, Cornell University Leston Edgar Fitch, A.B., 1932, Cornell University New Paltz, N. Y. Charles Cauldwell Foote, Ph.B., 1931, Yale University New York, N. Y. Leo David Freydberg, A.B., 1932, Cornell University Granville, N. Y. Brooklyn, N. Y. Joseph Louis Gaster, A.B., 1932, Cornell University Louise Frances Gilman, A.B., 1932, Wellesley College Wilson Harmon Glass, A.B., 1932, Dartmouth College Wu Chang, China Tulsa, Okla. Hudson, N. Y. Joseph Paul Gold, A.B., 1932, Cornell University Edward Mason Goodwin, B.S., 1930, College of the City of New York Sunnyside, L. I.

John Francis Griffin, A.B., 1932, Dartmouth College

Samuel Pollock Harbison, A.B., 1931, Princeton University

Edward Adams Hardy, A.B., 1932, Yale University

George Whiting Hebard, A.B., 1932, Williams College

Mary Ellen Heiss, A.B., 1932, Wellesley College

George Grundy Hollins, Jr., A.B., 1933, Cornell University

Harbert Bolster, Loberton University

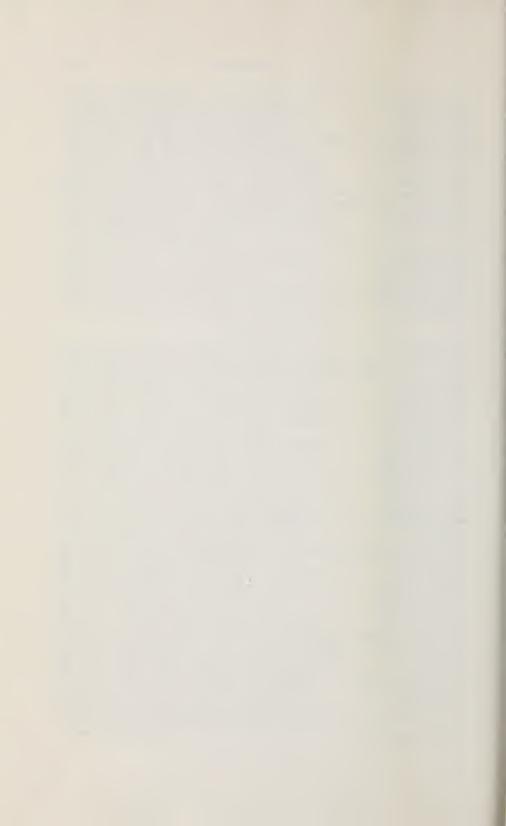
Montclair, N. J.

Montclair, N. J.

Montclair, N. J.

Montclair, N. J. Montclair, N. J. New York, N. Y. Herbert Bolster Johnson, Ph.B., 1932, Brown University Marriott Conard Johnson, B.S., 1924, University of Delaware Jackson Heights, N. Y. Francis Raymond Keating, Jr., A.B., 1933, Cornell University Philadelphia, Pa. Henry Augustus Kingsbury, B.S., 1932, Princeton University Edward Frank Kotyuka, A.B., 1932, Cornell University Montclair, N. J. Irvington, N. J. New Brunswick, N. J. Minot, N. D. Philip John Kunderman, B.S., 1932, Rutgers University John Samuel LaDue, A.B., 1932, University of Minnesota John Wayne Latcher, A.B., 1932, Cornell University William Caldwell Layton, A.B., 1933, Cornell University Mary Louise Leland, B.S., 1928, University of Minnesota, M.A., 1931, Onconta, N. Y. Concordia, Kan. New York University Minneapolis, Minn.





Rockville Centre, L. I. \*Kenneth Bedell Lewis, A.B , 1932, Cornell University Newark, N. J. New York, N. Y. Evarts Greene Loomis, Jr., B.S., 1932, Haverford College Alvina Looram, A.B., 1931, Barnard College Ward Beecher Manchester, Jr., A.B., 1933, Cornell University
George Grenville Merrill, Jr., A.B., 1932, Princeton University
Bernard Constant Meyer, A.B., 1932, Harvard University
John Augustus Northridge, A.B., 1933, Cornell University
Wilford Bochat Penny, Cornell University\*
Francis Otto Pfaff, A.B., 1933, Cornell University
Edmund Otto Piehler, A.B., 1932, Amherst College
Erwin Emanuel Pietzuch, B.S., 1932, College of the City of
New York Batavia, N. Y. Stockbridge, Mass: White Plains, N. Y.
Brooklyn, N. Y.
Garden City, N. Y.
Oneida, N. Y.
Webster, Mass. New York Richmond Hill, N. Y. George Edward Pittinos, Jr., A.B., 1932, Cornell University Port Richmond, N. Y. William Redmond Power, A.B., 1932, Fordham University New York, N. Y. George Adam Schumacher, B.S., 1932, The Pennsylvania State College Trenton, N. J. James Edward Segraves, B.S., 1932, Lafayette College Phillipsburg, N. Staten Island, N. Y. Donald McKay Shafer, A.B., 1932, Columbia University Eva Virginia Śmith, A.B., 1931, Smith College Norwich, Conn. Buffalo, N. Y. Gordon Alvin Spencer, A.B., 1933, Columbia University Martin Howard Stein, B.S., 1932, College of the City of New York Christopher Burton Stockton, B.S., 1930, University of Nevada Brooklyn, N. Y. Bakersfield, Cal. Dana Morris Street, B.S., 1932, Haverford College Ira Teicher, B.S., 1932, New York University White Plains, N. Y. Brooklyn, N. Y. Brooklyn, N. Y. Orchard Park, N. Y. Alphonse Emanuel Timpanelli, A.B., 1932, Columbia University Gordon Ira Trevett, A.B., 1932, Oberlin College
Daniel Gilroy Unangst, B.S., 1929, Rutgers University
Samuel Richard Volpe, A.B., 1932, Cornell University
Viola Sterne Wertheim, B.S., 1933, New York University
Charles Lawrence Whittemore, A.B., 1917, Williams College Bayonne, N. J.
West New York, N. J.
Nyack, N. Y.
New Canaan, Conn.
New York, N. Y. Saul Wohl, B.S., 1932, College of the City of New York

### FIRST YEAR

THE TEM	
Edwin Laws Anderson, M.E., 1930, Stevens Institute Shepard Gerard Aronson, Cornell University* William Alexander Barnes, A.B., 1933, College of the City of New James Frederick Bing, B.S., 1933, Columbia University Henry Seavey Blake, Jr., B.S., 1933, Washburn College James Gelston Boyd, A.B., 1933, Yale University	South Orange, N. J. Brooklyn, N. Y. W York New York New York, N. Y. Topeka, Kansas New Haven, Conn.
John Hood Branson, Jr., A.B., 1933, Dartmouth College	Bronxville, N. Y.
LeRoy Cleaver Brown, B.S., 1933, Hobart College	Staten Island, N. Y.
Adele Montgomery Burcher, A.B., 1933, Barnard College	Scarsdale, N. Y.
Arthur Illges Chenoweth, A.B., 1933, University of Alabama	Birmingham, Ala.
Janet Cobb, B.S., 1933, Smith College	Cleveland, Ohio
David Aloysius Connors, B.S., 1933, Fordham University	New York, N. Y.
	Pocantico Hills, N. Y.
Dorothea Deimel, A.B., 1933, Barnard College	Hoboken, N. J.
Donald Thayer Dodge, B.S., 1933, Harvard College	Arlington, Mass.
Walton Merideth Edwards, A.B., 1933, Stanford University	Los Altos, Cal.
Harold Eliasberg, Cornell University*	New York, N. Y.
Edgar Philip Fleischmann, Cornell University*	Linden, N. J.
Edward James Hehre, A.B., 1933, Cornell University	Pelham Manor, N. Y.
Palaemon Lawrence Hilsman, Cornell University*	Albany, Georgia
Aaron Himmelstein, B.S., 1933, College of the City of New York	New York, N. Y.
William Douglas Holden, Cornell University*	Pittsfield, Mass.
Elmer Leaman Horst, B.S., 1933, Pennsylvania State College	Annville, Pa.
Elizabeth Page Hosmer, A.B., 1933, Stanford University	Tacoma, Wash.
Patty Julia Hynes, A.B., 1933, University of Minnesota	Minneapolis, Minn.

<sup>\*</sup>Admitted under Clause II.

George Leonard Kauer, Jr., A.B., 1933, New York University
Joseph Taylor Kauer, A.B., 1933, New York University
Francis Conrad Keil, Jr., A.B., 1932, Columbia University
Łola Fayette King, A.B., 1933, Vassar College
Walter Gorringe King, A.B., 1931, Colgate University
Newton Krumdieck, A.B., 1933, Columbia University
Andrew Olavi Laakso, B.S., 1933, Tufts College
Harold Lohnas, A.B., 1933, Columbia University New York, N. Y. New York, N. Y. New York, N. Y. Shreveport, La. Binghamton, N. Y. Binghamton, N. 1.
New York, N. Y.
Plainfield, Conn.
Brooklyn, N. Y.
New York, N. Y.
New York, N. Y.
New York, N. Y.
New Rochelle, N. Y. Harold Lohnaas, A.B., 1933, Columbia University

Eugene Leonard Lozner, A.B., 1933, Columbia University

Norman William MacLeod, A.B., 1933, Cornell University

Robert Ferdinand McGannon, A.B., 1933, Columbia University Theodore Carleton Massoth, B.S., 1933, Columbia University

George Rodney Meneely, B.S., 1933, Princeton University

William Earl Moore, B.S. in Chem., 1932, Pennsylvania Military

Helen Josephine Neave, A.B., 1933, Mt. Holyoke College

William Henry Pettus, Jr., B.S., 1933, University of Richmond

Donald Burns Read, A.B., 1933, Cornell University

Charles Richards, B.S. 1033, Nurversity of Richmond

Charles Richards, R.S. 1033, Nurversity of Richmond

Golden, Col. Charles Richards, B.S., 1933, New York University Wolcott, N. Y. Howard Enos Riggin, A.B., 1931, Yale University Glen Ridge, N. J. Charles Burling Roesch, Cornell University\* Lynbrook, N. Y. Arthur Merriam Rogers, A.B., 1933, Yale University
Elizabeth Rusch, A.B., 1933, Vassar College Madison, N. J. New York, N. Y. Stuart Sanger, B.S., 1928, Yale University Fishkill, N. Y. George Schaefer, B.S., 1933, New York University Middle Village, L. I. Flushing, N. Y. Herman William Schneider, A.B., 1933, Columbia University Frederick William Schumacher, B. Chem., 1930, Cornell University
Arthur Walter Seligman, A.B., 1933, Columbia University
Edwin McRae Shepherd, B.S., 1933, Hampden-Sydney College Jersey City, N. J. New York, N. Y. Charleston, W. Va. From McKae Shepherd, B.S., 1933, Princeton University

Walter Eugene Vogt, B.S., 1933, College of the City of New York

Prederick Preston Titus, A.B., 1933, Johns Hopkins University

Walter Eugene Vogt, B.S., 1933, Lafayette College

Chauncey Prentiss Ward, A.B., 1933, Princeton University

Charles Oscar Warren, Jr., 1927, A.B., Cornell University, M.Sc.,

1929, New York University Brooklyn, N. Y. New York, N. Y. Glen Cove, L. I. Jamaica, N. Y. Newark, N. J. Brooklyn, N. Y. Richard Hutchins Whelpley, A.B., 1933, Union College Edwin Thurston Williams, B.S., 1933, Washburn College Jesse Charles Woodward, A.B., 1933, University of California Rochester, N. Y. Tokepa, Kan. Payette, Idaho

### FIRST YEAR AT ITHACA

Ruth Barnhart, A.B., 1923, Wells College
Frank Albert Baumann, A.B., 1933, Cornell University
Abram Salmon Benenson, A.B., 1933, Cornell University
Julian Scott Butterworth, A.B., 1932, Cornell University
Newton David Chapman 3rd, Cornell University\*
Bliss Bartlett Clark, A.B., 1931, Cornell University,
Walter Eugene Fleischer, B.S., 1929, Cornell University
William Thomas Foley, A.B., 1933, Columbia University
Ira Gore, Cornell University\*
Roger Allen Harvey, B.S., 1933, Hamilton College
Clayton Stanley Hitchins, Cornell University\*
Horace Leonard Jones, Jr., A.B., 1932, Cornell University
Ernest Ellsworth Keet, Jr., Cornell University\*
Putnam Cornelius Kennedy, Cornell University\*
Henry Belden Marshall, Cornell University\*
Henry Belden Marshall, Cornell University\*
Hugh Crahan Murphy, B.S., 1933, Cornell University

Dayton, Ohio
Binghamton, N. Y.
Napanoch, N. Y.
Ithaca, N. Y.
Port Richmond, N. Y.
New Britain, Conn.
Albany, N. Y.
Flushing, N. Y.
Brooklyn, N. Y.
Binghamton, N. Y.
Lock Haven, Pa.
Ithaca, N. Y.
Jamaica, N. Y.
Catskill, N. Y.
Staten Island, N. Y.
Horscheads, N. Y.
Eastport, N. Y.

<sup>\*</sup>Admitted under Clause II.

Monica Noonan, A.B., 1933, Skidmore College William Alfred Paff, A.B., 1933, Cornell University	Rome, N. Y. Easton, Pa.
George Parke Rouse, Jr., A.B., 1933, Amherst College	Ridley Park, Pa.
Raymond Schwartz, Cornell University*	Stamford, Conn.
Henley Sklarsky, Cornell University*	Niagara Falls, N. Y.
William Howard Sternberg, A.B., 1933, Cornell University	Evergreen, L. I.
Kenneth Aloysius Tyler, Cornell University*	Ithaca, N. Y.
Edward Haughton Vincent, B.S., 1933, Harvard University	Kalamazoo, Mich.
George Wineburg, Cornell University*	Utica, N. Y.

# SUMMARY

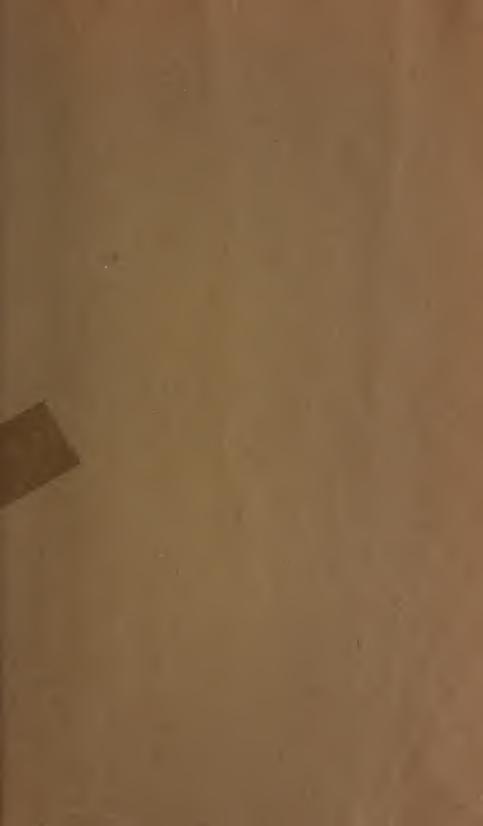
Fourth Year									
Third Year		•	•	•	•	•		•	. 70
Second Year First Year (New York).									
First Year (Ithaca).									. 26
Total								•	. 278

<sup>\*</sup>Admitted under Clause II.









# CORNELL UNIVERSITY OFFICIAL PUBLICATION

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